U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-296 545

Water Resources Data for Idaho, Water Year 1977

(U.S.) Geological Survey, Boise, ID Water Resources Div

Prepared for

Bureau of Reclamation, Washington, DC

Feb 79

PB 296545

Water Resources Data for Idaho

Water Year 1977

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT ID-77-1

Prepared in cooperation with the State of Idaho
and with other agencies

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1977

1976

OCTOBER

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1977

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BIBLIOGRAPHIC DATA SHEET

1. Report No. USGS/WRD/HD-78/036

2.

Recipient's Accession No. PB296545

4. Title and Subtitle

Water Resources Data for Idaho, Water Year 1977

5. Report Date February 1979

6.

7. Author(s)

8. Performing Organization Rept. No. USGS-WDR-ID-77-1

9. Performing Organization Name and Address

U.S. Geological Survey, Water Resources Division
P.O. Box 036, Federal Building
550 West Fort Street
Boise, Idaho 83724

10. Project/Task/Work Unit No.

11. Contract/Grant No.

12. Sponsoring Organization Name and Address

U.S. Geological Survey, Water Resources Division
P.O. Box 036, Federal Building
550 West Fort Street
Boise, Idaho 83724

13. Type of Report & Period Covered Annual - Oct. 1, 1976, to Sept. 30, 1977

14.

15. Supplementary Notes

Prepared in cooperation with the State of Idaho and with other agencies.

16. Abstracts

Water resources data for the 1977 water year for Idaho consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 190 gaging stations; stage only records for 2 gaging stations; stage for 6 lakes; contents for 24 lakes and reservoirs; water-quality for 95 gaging stations, 76 partial-record stations, and 287 wells; and water levels for 6 observation wells. Also included are data for 57 crest-stage partial-record stations and 187 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Idaho.

17. Key Words and Document Analysis. 17a. Descriptors

*Idaho, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Availability Statement No restriction on distribution.
This report may be purchased from:
National Technical Information Service
Springfield, VA 22161

19. Security Class (This Report) UNCLASSIFIED

20. Security Class (This Page) UNCLASSIFIED

21. No. of Pages 655

22. Price A99 - A01

Water Resources Data
for
Idaho

Water Year 1977

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT ID-77-1

Prepared in cooperation with the State of Idaho
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. W. Menard, Director

For information on the water program in Idaho write to
District Chief, Water Resources Division
U.S. Geological Survey
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Boise, Idaho 83724

1979

Preface

This report was prepared by personnel of the Idaho district of the Water Resources Division of the U.S. Geological Survey under the supervision of E. E. Harris, District Chief, and W. H. Robinson, Regional Hydrologist, Western Region. It was done in cooperation with the State of Idaho and with other agencies.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[*Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (e) elevation or contents, (s) sediment*]

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BINGHAM COUNTY
432701112471101, local number 02N 31E 35DCC1---------------------- 592

GOODING COUNTY
425635114382301, local number 05S 15E 35DBC2---------------------- 592

JEROME COUNTY
423659114111601, local number 09S 19E 25BBC1---------------------- 593

KOOTENAI COUNTY
475558116464701, local number 53N 04W 24BBA1---------------------- 593

MINIDOKA COUNTY
424053113412801, local number 08S 24E 31DAC1---------------------- 594

WATER RESOURCES DATA FOR IDAHO, 1977

INTRODUCTION

Water resources data for the 1977 water year for Idaho consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 190 gaging stations; stage only records for 2 gaging stations; stage for 6 lakes; contents for 24 lakes and reservoirs; water-quality for 95 gaging stations, 76 partial-record stations, and 287 wells; and water levels for 6 observation wells. Also included are data for 57 crest-stage partial-record stations and 187 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Idaho.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report ID-77-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Idaho have had cooperative agreements for the systematic collection of streamflow records since 1909, for ground-water levels since 1946, and for water-quality records since 1965. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Idaho Department of Water Resources, C. S. Allred, director.

Idaho Department of Transportation, Division of Highways, E. D. Tisdale, P.E., State highway administrator.

Bear River Commission, E. O. Larson, chairman.

Assistance in the form of funds or services was given by the Bureau of Reclamation, U.S. Department of the Interior, in collecting records for 24 gaging stations; Corps of Engineers, U.S. Army, in collecting records for 21 gaging stations; U.S. Department of State in collecting records for 11 gaging stations and one water-quality station; Environmental Protection Agency in collecting records for 11 water-quality stations; Forest Service, U.S. Department of Agriculture, in collecting records for three gaging stations; Bureau of Land Management, U.S. Department of the Interior, in collecting records for two gaging stations; Soil Conservation Service, U.S. Department of Agriculture, in collecting records for two gaging stations; and by the Bureau of Indian Affairs, U.S. Department of the Interior, in collecting records for one gaging station published in this report.

The following organizations aided in collecting records:

Water Districts 01, 31, 33, 34, 37, 37N, and 65K; King Hill Irrigation District; Oakley Canal Co.; Idaho Power Co.; Washington Water Power Co.; Utah Power & Light Co.; Salmon River Canal Co.; and Blaine County Canal Co.

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENTS

Idaho district personnel who contributed significantly to the collection and preparation of the data in this report were: H. A. Ray, chief, hydrologic data section, assisted by L. C. Kjelstrom, R. W. Harper, A. L. Larson, S. A. Gutenberger, J. R. Spofford, H. G. Sisco, W. H. Low, S. C. Cordes, and R. L. Murphy.

HYDROLOGIC CONDITIONS

The mean annual streamflow for the 1977 water year was the minimum of record in many basins in Idaho as indicated by records at gaging stations including, but not limited to, Boise River near Boise (83 years of record), Coeur d'Alene River at Enaville (58 years), Salmon River at White Bird (65 years), Clearwater River at Orofino (65 years), Weiser River near Weiser (66 years), and Snake River near Heise (67 years) and at Weiser 67 years). Streamflow during October was excessive in south Idaho and deficient in many streams in north Idaho. Practically all streams had receded to the deficient range by February because fall and winter precipitation was lowest of record at most places; and streamflow continued deficient in most streams until the water year ended.

Lowest flows of record for the respective months occurred in the Coeur d'Alene, Clearwater, Payette, Weiser, and other basins in February or March, in practically all basins in May, in Snake River at Weiser and some others in June and July, and in Coeur d'Alene River at Enaville and others in August. General rains beginning the last week of May alleviated the drought considerably as did one or two other well-spaced rains during the remainder of the summer. However, most streams were in the deficient range in September except in Clearwater and Kootenai River basins where streamflow increased to above the median for the month.

Carryover storage in most reservoirs at the beginning of the water year was above average. In a selected group of the larger reservoirs, storage for irrigation was about 35 million acre-feet or about 56 percent of capacity, and storage for power was about 7.3 million acre-feet or about 90 percent of capacity. By the end of the water year, storage for irrigation was withdrawn to about 14 percent of capacity, whereas the supplies for power were carefully preserved to supply needs during the winter of 1977-78 and were at about 78 percent of capacity.

Stream-gaging coverage was intensified at gaging stations during the drought to assist management of water distribution, hydro power production, compact requirements, and for extension of lower ends of rating curves at gaging stations.

Significant hydrologic data were collected to monitor the intensity of deficient hydrologic conditions statewide, and to use as a basis for planning during possible future droughts. In addition to the quality of water data and streamflow records gathered at nearly 200 regular gaging stations, and the contents or stage records on about 30 lakes and reservoirs, considerable additional hydrologic data were collected. Assisted by cooperating agencies, about 1,040 discharge measurements were obtained at about 420 sites to monitor low flows. Water temperature and specific conductance were determined with each flow measurement.

Monthly and annual mean discharge is compared with medians at two representative gaging stations in figure 2.

Ground-water levels in north Idaho (fig. 3) began to decline in early summer 1976 and continued downward through the summer of 1977 until they were about 8 feet below 1976 levels. In north-central Idaho (fig. 4), the levels were near normal in spring 1976 but declined about 15 feet by late summer 1977.

In the Payette River valley of west-central Idaho (fig. 5), levels were 1-2 feet lower in spring 1977 than in spring 1976 and remained at this level during summer 1977. Levels in the Weiser River valley had declined 1-4 feet from late summer 1976 to late summer 1977. In the Salmon River and Lemhi River valleys of east-central Idaho (fig. 6), levels showed no significant change. Levels in the Pahsimeroi valley were near normal during spring 1977 but declined about 5 feet throughout summer 1977.

In Boise Valley of southwest Idaho (fig. 7), levels in the shallow aquifer, which is recharged largely from surface-water irrigation, were near normal. In areas where ground-water is withdrawn for irrigation, levels continued a downward trend (beginning in 1975) and were 0.5-1.5 feet lower in late summer 1977 than they were in 1976. In areas of ground-water development on the Mountain Home Plateau, water levels showed declining long-term trends and were 1-5 feet lower in 1977 than they were in 1976. In the area south of the Snake River, water levels were 1-10 feet lower in late summer 1977 than they were in 1976.

The Big Wood River valley of south-central Idaho (fig. 8) received only a small amount of recharge during late spring 1977 and water levels dropped 5-10 feet below those of 1976.

Water levels in the northern tributary valleys adjacent to the Snake Plain aquifer were generally down because of reduced recharge during the drought year. In the areas of ground-water pumping for irrigation, water levels continued to decline and were below 1976 levels. In the Rupert-Minidoka area and west to Gooding, spring 1977 levels remained near or slightly below those of 1976 but declined 2-10 feet by late summer 1977. Tributary valleys south of the Snake River had levels 1-5 feet lower in spring 1977 than in spring 1976. In areas of heavy ground-water withdrawals (Raft River, Salmon Falls Creek), water levels showed declining long-term trends, dropping 1-5 feet from 1976 to 1977.

In the area from American Falls to Idaho Falls in southeast Idaho (fig. 9), levels were generally 1 foot lower in 1977 than in 1976. In the Portneuf River valley, levels in spring 1977 were about 1 foot lower than in spring 1976 and 2-11 feet lower by late summer 1977. Reduced recharge in Malad valley during the drought year caused levels to drop 1-11 feet by late summer 1977. In the Bear River drainage, levels declined slightly in late summer 1977 below those in 1976. Levels in the Mud Lake and Henrys Fork areas declined 1-6 feet by late summer 1977 from late summer 1976.

In summary, less recharge to the aquifers during the drought year caused seasonal water-level peaks to be lower than in the previous year. Generally, by late summer 1977, ground-water levels in most of the State had declined below 1976 levels, in a range from 0.5-15 feet.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report are defined below. See also the table for converting English units to International System of units (SI) on the inside back cover.

Acre-foot (ac-ft,AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on m-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per litre, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/s, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to the amount of a substance present in true chemical solution. In practice, however, the term includes all forms of the substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L,ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L,mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/l, and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square metres (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC,pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioacitivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton in the plant of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary production is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/($m^2\cdot$time for periphyton and macrophytes and mg C/($m^3\cdot$time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/($m^2\cdot$time) for periphyton and macrophytes and mg O_2/($m^3\cdot$time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN,in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The use of artificial substrates simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multicelled samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 13317000, which appears just to the left of the station name, includes the 2-digit part number "13" plus the 6-digit downstream order number "317000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

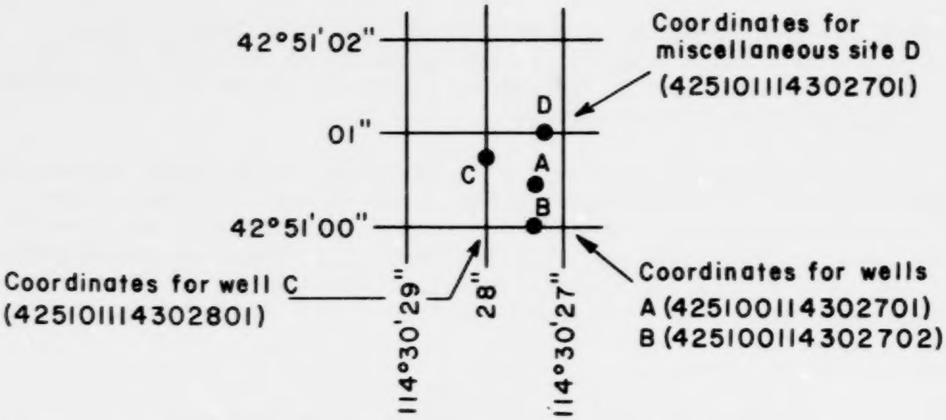
42°51'02"
01"
42°51'00"
Coordinates for miscellaneous site D
(425101114302701)
D
C
A
B
Coordinates for well C
(425101114302801)
114°30'29"
28"
114°30'27"
Coordinates for wells
A (425100114302701)
B (425100114302702)

Figure 1.--System for numbering wells and miscellaneous sites (latitude and longitude).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-to-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and the yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations, the stage-discharge relation is affected by changing stage; at these stations, the rate of change in stage is used as a factor in computing discharge.

At some gaging stations, the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations, there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute the daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years, only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gages, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations, information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents). it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations, peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs, the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs, a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are prsented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations.

The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of Field Data and Computed Results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s' and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected in the current water year by other State and Federal agencies. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the Data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 1.

Measurements are made in many types of wells under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office. Prices are effective January 1978 but are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W.Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $1.00.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.35.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages. $1.00.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. $1.40.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $0.65.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970. 59 pages. $2.50.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. $2.10.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4 Chapter A1. 1968. 39 pages. $1.60.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $0.35.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972, 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.65.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elments in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4.* *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $20.00.

5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $2.10.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

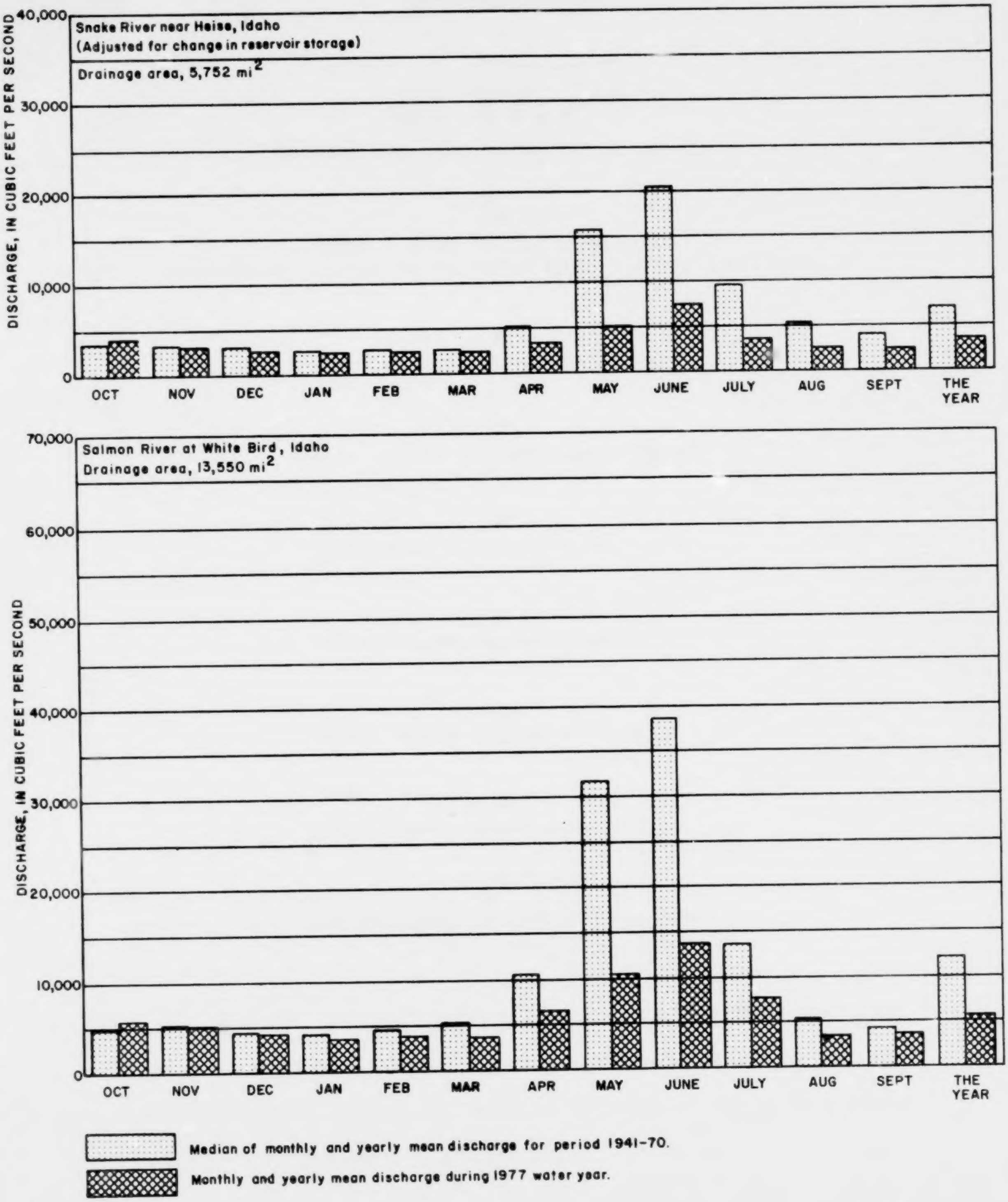

Figure 2.--Discharge during 1977 water year compared with median discharge for period 1941-70 for two representative gaging stations.

EXPLANATION

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PART 13

River basin boundary and number

321500 ▲

Gaging station and number

Inverted symbol indicates water-quality station

▼

Chemical-measurement site

▼

Temperature-measurement site

▼

Biological-measurement site

▼

Sediment-measurement site

△

Low-flow measurement site

▲

Crest-stage measurement site

51N-04W-18

●

Observation well and number

This explanation is for all seven maps in the report. Shaded areas on figures 3 and 8 indicate areas of detailed study. Data for these areas are listed in this report, but individual collection sites are not shown.

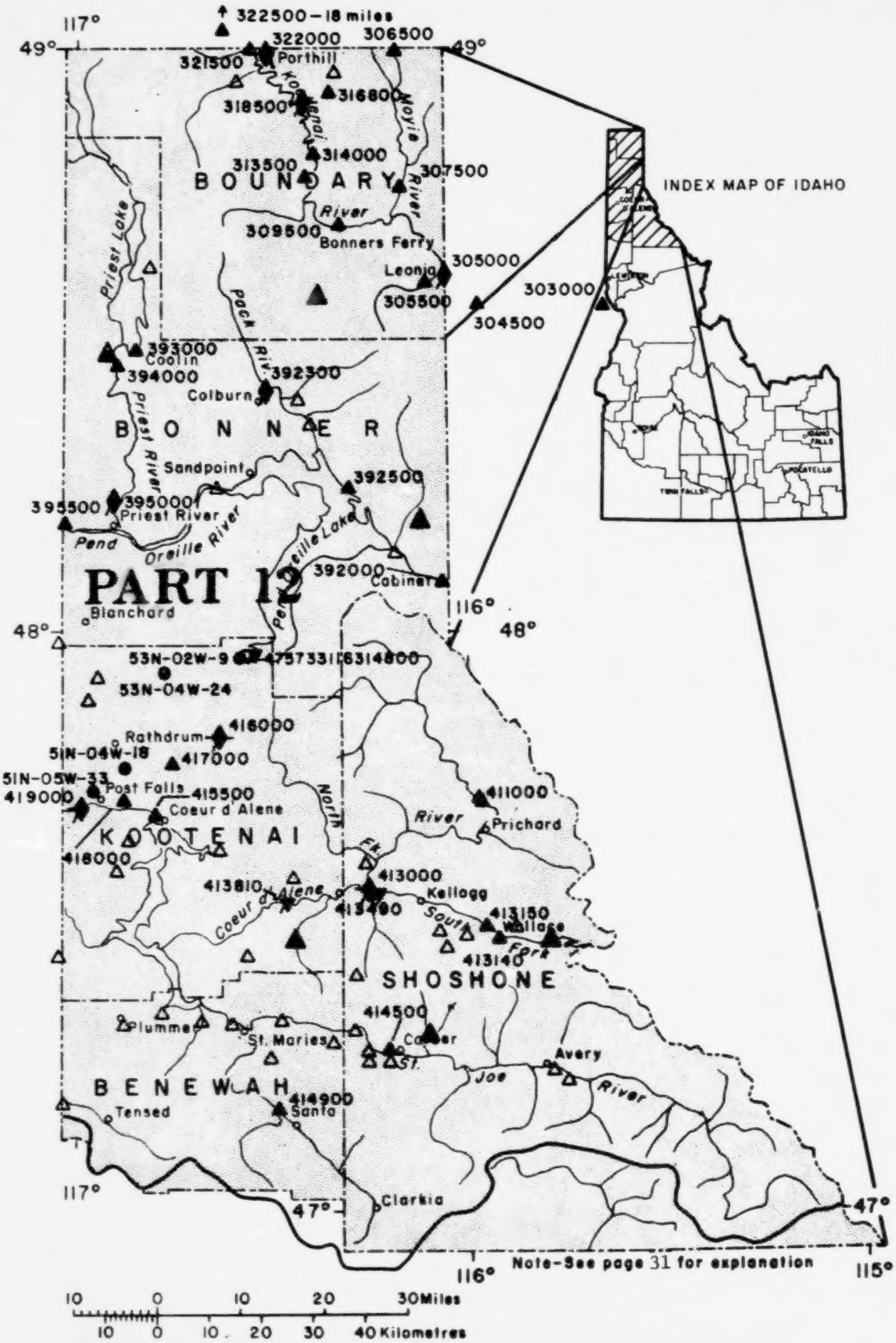

322500—18 miles
117°
49°
322000
306500
49°
321500
Porthill
316800
318500
Kootenai
Moyie
River
314000
313500
307500
BOUNDARY
River
309500
Bonners Ferry
Leonia
305000
305500
304500
303000
INDEX MAP OF IDAHO
Priest Lake
Pack River
393000
Coolin
394000
392300
Colburn
BONNER
Priest River
Sandpoint
392500
395500
395000
Priest River
Pend Oreille River
Pend Oreille Lake
392000
Cabinet
PART 12
Blanchard
116°
48°
48°
53N-02W-9
475733116314800
53N-04W-24
Rathdrum
416000
51N-04W-18
417000
51N-05W-33
419000
Post Falls
415500
Coeur d'Alene
411000
North Fk.
River
Prichard
KOOTENAI
418000
413000
413810
Coeur d'Alene
Kellogg
413490
South Fork
413150
Wallace
413140
SHOSHONE
414500
Calder
Plummer
St. Maries
St. Joe River
Avery
BENEWAH
414900
Santa
Tensed
117°
47°
Clarkia
47°
116°
Note—See page 31 for explanation
115°
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres

FIGURE 3.--Location of data sites in north Idaho.

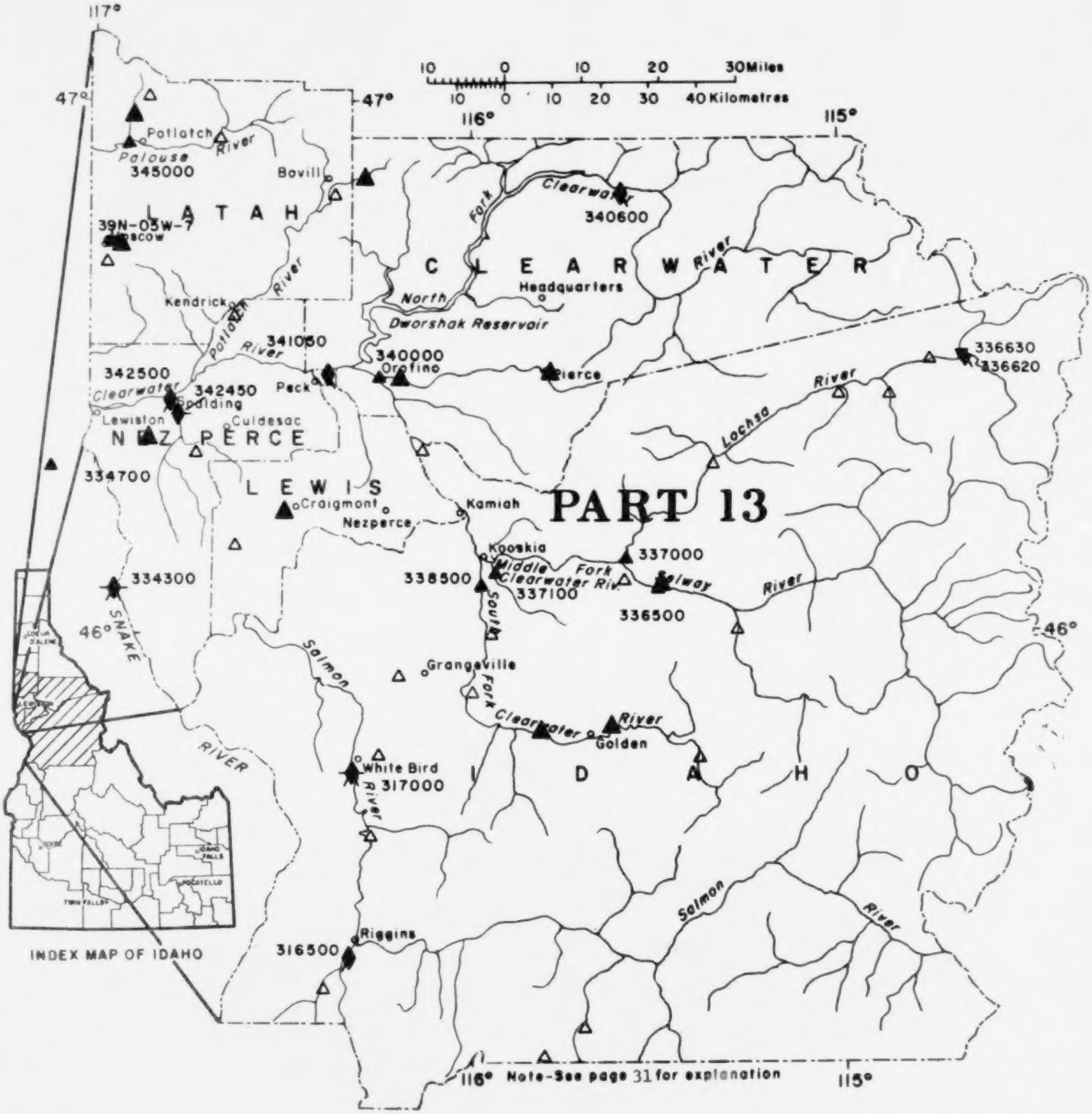
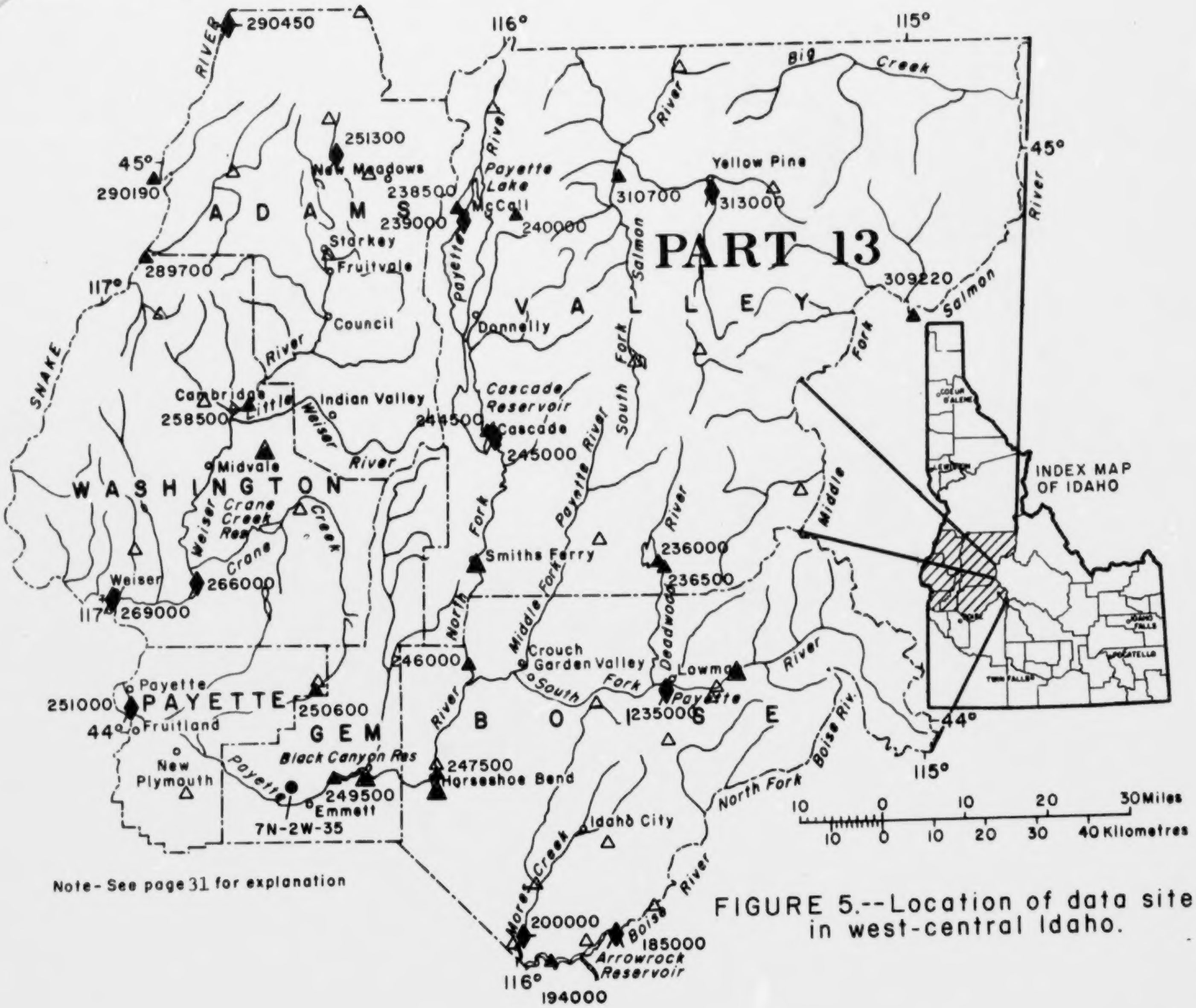

117°
47°
47°
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres
116°
115°
Potlatch
Palouse River
345000
Bovill
LATAH
39N-03W-7
Moscow
Kendrick
Potlatch River
North Fork Clearwater
340600
CLEARWATER
Headquarters
Dworshak Reservoir
341050
340000
Orofino
Peck
Pierce
336630
336620
342500
Clearwater
342450
Spalding
Lewiston
Culdesac
NEZ PERCE
Lochsa River
334700
LEWIS
Craigmont
Nezperce
Kamiah
PART 13
Kooskia
337000
Middle Fork Clearwater Riv.
338500
337100
Selway River
336500
334300
SNAKE
46°
46°
Salmon
South Fork
Grangeville
Clearwater River
Golden
RIVER
White Bird
317000
River
IDAHO
Salmon River
INDEX MAP OF IDAHO
Riggins
316500
116°
Note-See page 31 for explanation
115°

FIGURE 4.--Location of data sites in north-central Idaho.


PART 13
116°
115°
45°
44°
117°
SNAKE RIVER
290450
251300
New Meadows
290190
ADAMS
238500
239000
Payette Lake
McCall
240000
310700
Yellow Pine
313000
Big Creek
River
Salmon
309220
Salmon River
289700
Starkey
Fruitvale
Council
VALLEY
South Fork
Donnelly
Cascade Reservoir
Cascade
244500
245000
Cambridge
258500
Little Weiser River
Indian Valley
Midvale
WASHINGTON
Crane Creek Res
Crane Creek
Weiser
266000
269000
Smiths Ferry
Payette River
Middle Fork
North Fork
River
236000
236500
Middle Fork
Deadwood
Crouch
Garden Valley
South Fork Payette
Lowman
235000
246000
Payette
251000
PAYETTE
Fruitland
250600
GEM
Black Canyon Res
247500
Horseshoe Bend
New Plymouth
Payette
249500
Emmett
7N-2W-35
BOISE
Idaho City
Mores Creek
North Fork
Boise Riv.
Boise River
200000
185000
Arrowrock Reservoir
194000
INDEX MAP OF IDAHO
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres

Note- See page 31 for explanation

FIGURE 5.--Location of data sites in west-central Idaho.

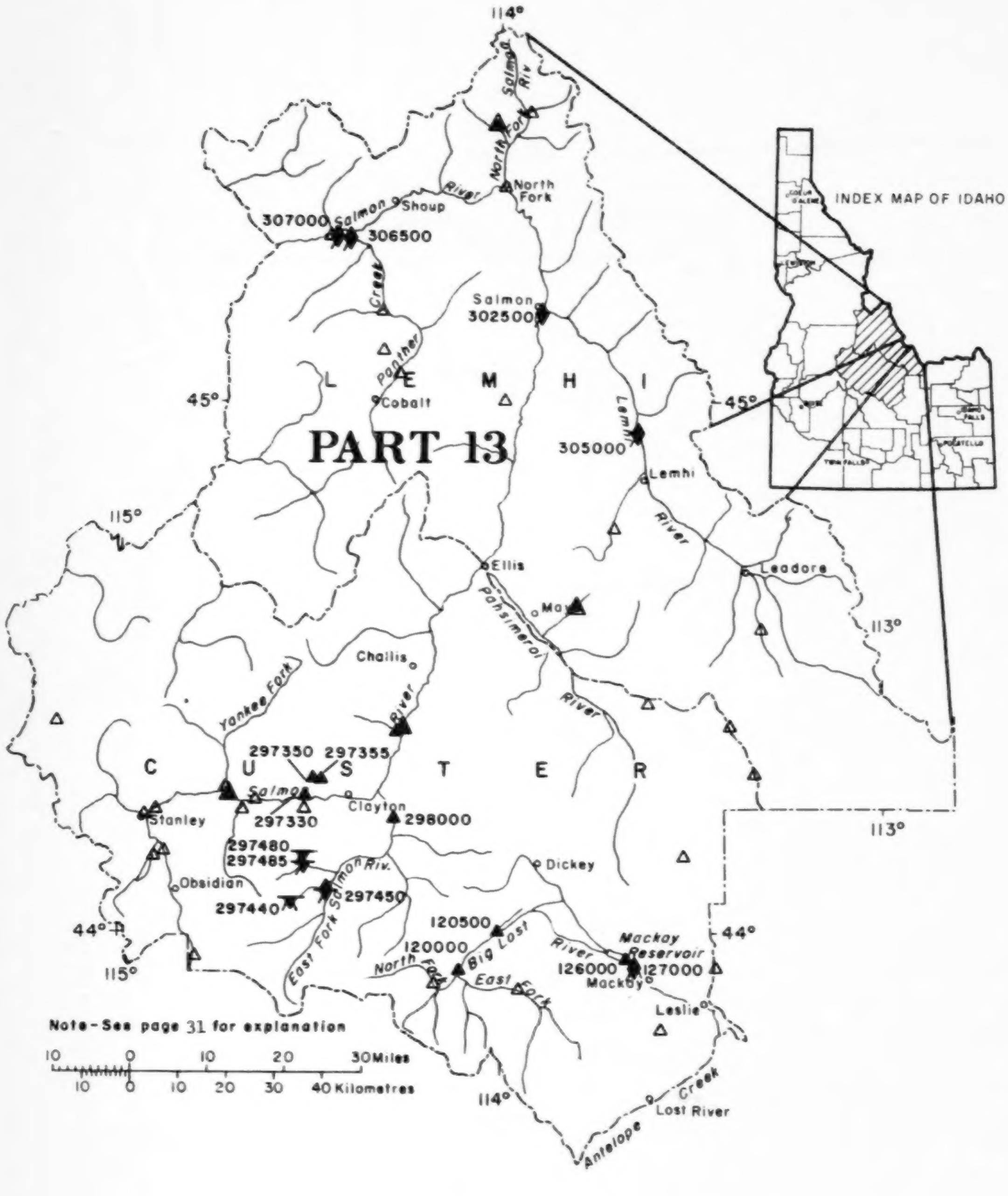

114°
Salmon Riv
North Fork
North Fork
River
Shoup
Salmon
307000
306500
Creek
Panther
Salmon
302500
INDEX MAP OF IDAHO
COEUR D'ALENE
LEWISTON
BOISE
IDAHO FALLS
POCATELLO
TWIN FALLS
45°
L E M H I
Cobalt
PART 13
305000
Lemhi
Lemhi
River
115°
Ellis
Leadore
Pahsimeroi
May
113°
Challis
Yankee Fork
River
River
C U S T E R
297350 297355
Salmon
Stanley
297330
Clayton
298000
113°
297480
297485
Salmon Riv.
Dickey
Obsidian
297450
297440
East Fork
44°
115°
120500
120000
North Fork
Big Lost
River
Mackay Reservoir
126000
127000
Mackay
East Fork
44°
Leslie
Note-See page 31 for explanation
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres
114°
Antelope Creek
Lost River

FIGURE 6.--Location of data sites in east-central Idaho.

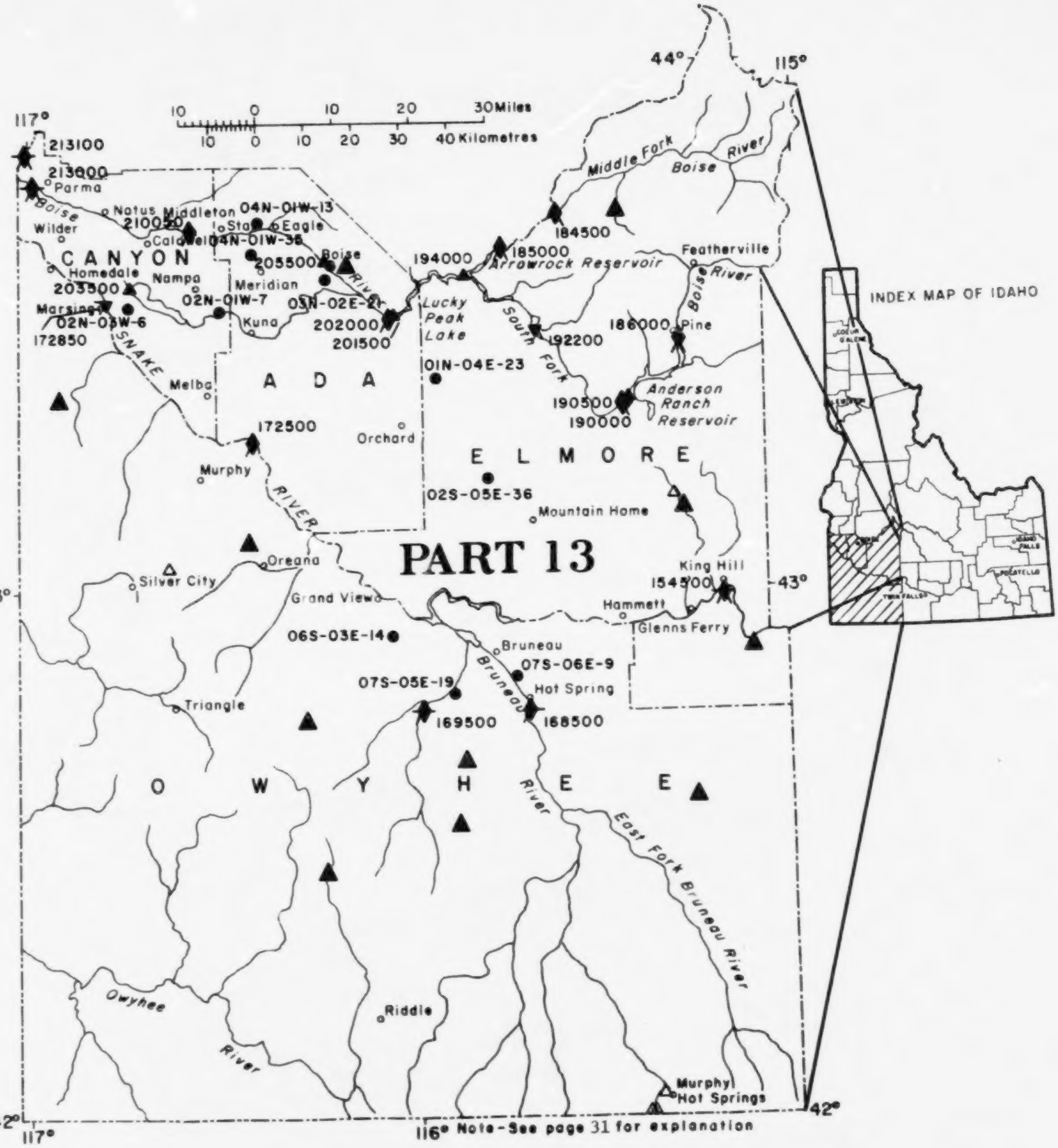
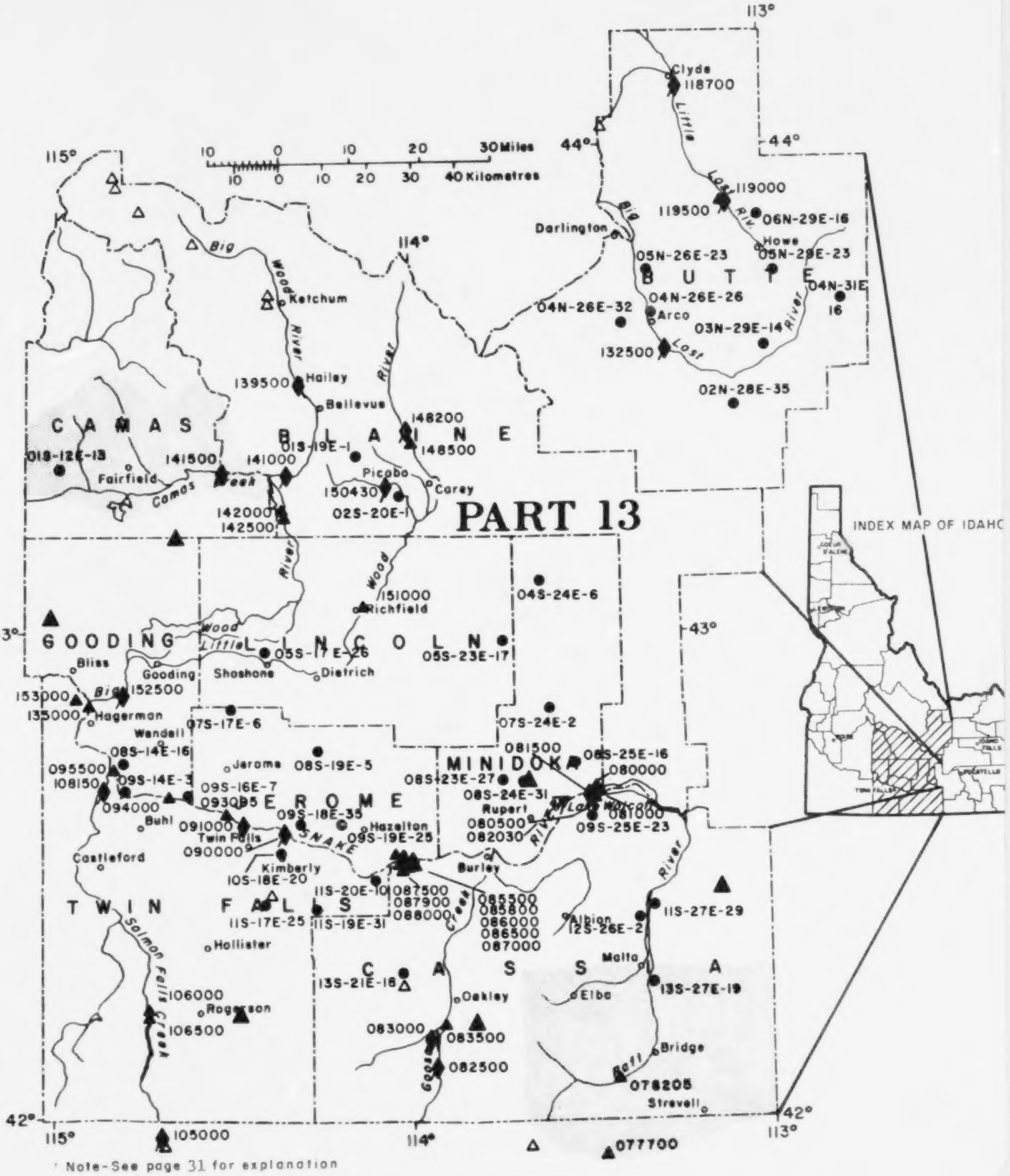

117°
213100
213000
Parma
Boise
Notus
Middleton
04N-01W-13
Wilder
210050
Caldwell
Star
Eagle
04N-01W-35
CANYON
205500
Boise
Homedale
Nampa
Meridian
203500
02N-01W-7
03N-02E-21
Marsing
02N-03W-6
Kuna
202000
201500
172850
SNAKE
Melba
ADA
172500
Orchard
Murphy
RIVER
Oreana
Silver City
Grand View
43°
06S-03E-14
Triangle
07S-05E-19
169500
OWYHEE
Owyhee River
Riddle
42°
117°
116° Note-See page 31 for explanation
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres
44°
115°
Middle Fork Boise River
184500
185000
194000
Arrowrock Reservoir
Featherville
Boise River
Lucky Peak Lake
South Fork
192200
186000
Pine
01N-04E-23
190500
190000
Anderson Ranch Reservoir
ELMORE
02S-05E-36
Mountain Home
PART 13
King Hill
154500
43°
Hammett
Glenns Ferry
Bruneau
07S-06E-9
Hot Spring
168500
Bruneau River
East Fork Bruneau River
Murphy Hot Springs
42°
INDEX MAP OF IDAHO

FIGURE 7.--Location of data sites in southwest Idaho.


113°
Clyde
118700
Little
Lost
119000
119500
06N-29E-16
Howe
05N-29E-23
44°
Darlington
Big
05N-26E-23
B U T T E
04N-31E
16
04N-26E-32
04N-26E-26
Arco
03N-29E-14
River
132500
Lost
02N-28E-35
115°
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres
114°
Big
Wood
River
Ketchum
139500
Hailey
Bellevue
River
148200
148500
C A M A S
B L A I N E
01S-12E-13
Fairfield
Camas
Creek
141500
141000
01S-19E-1
Picabo
150430
Carey
02S-20E-1
142000
142500
PART 13
INDEX MAP OF IDAHO
River
Wood
151000
Richfield
04S-24E-6
43°
G O O D I N G
L I N C O L N
Little
Wood
Bliss
05S-17E-26
05S-23E-17
Gooding
Shoshone
Dietrich
153000
Big
152500
135000
Hagerman
Wendell
07S-17E-6
07S-24E-2
08S-14E-16
081500
08S-25E-16
095500
Jerome
08S-19E-5
M I N I D O K A
080000
108150
09S-14E-3
09S-16E-7
08S-23E-27
093095
J E R O M E
08S-24E-31
094000
Rupert
081000
Buhl
091000
09S-18E-35
Hazelton
080500
09S-25E-23
Twin Falls
09S-19E-25
082030
SNAKE
River
Lake Walcott
090000
Castleford
Kimberly
Burley
10S-18E-20
River
11S-20E-10
087500
085500
T W I N F A L L S
087900
085800
11S-27E-29
088000
086000
Albion
11S-17E-25
11S-19E-31
086500
12S-26E-2
087000
Creek
Hollister
Malta
C A S S I A
13S-21E-16
Oakley
Elba
13S-27E-19
106000
Rogerson
Salmon Falls Creek
083000
083500
106500
Bridge
Goose
082500
Raft
078205
Strevell
42°
115°
114°
113°
105000
077700

Note-See page 31 for explanation

FIGURE 8.--Location of data sites in south-central Idaho.

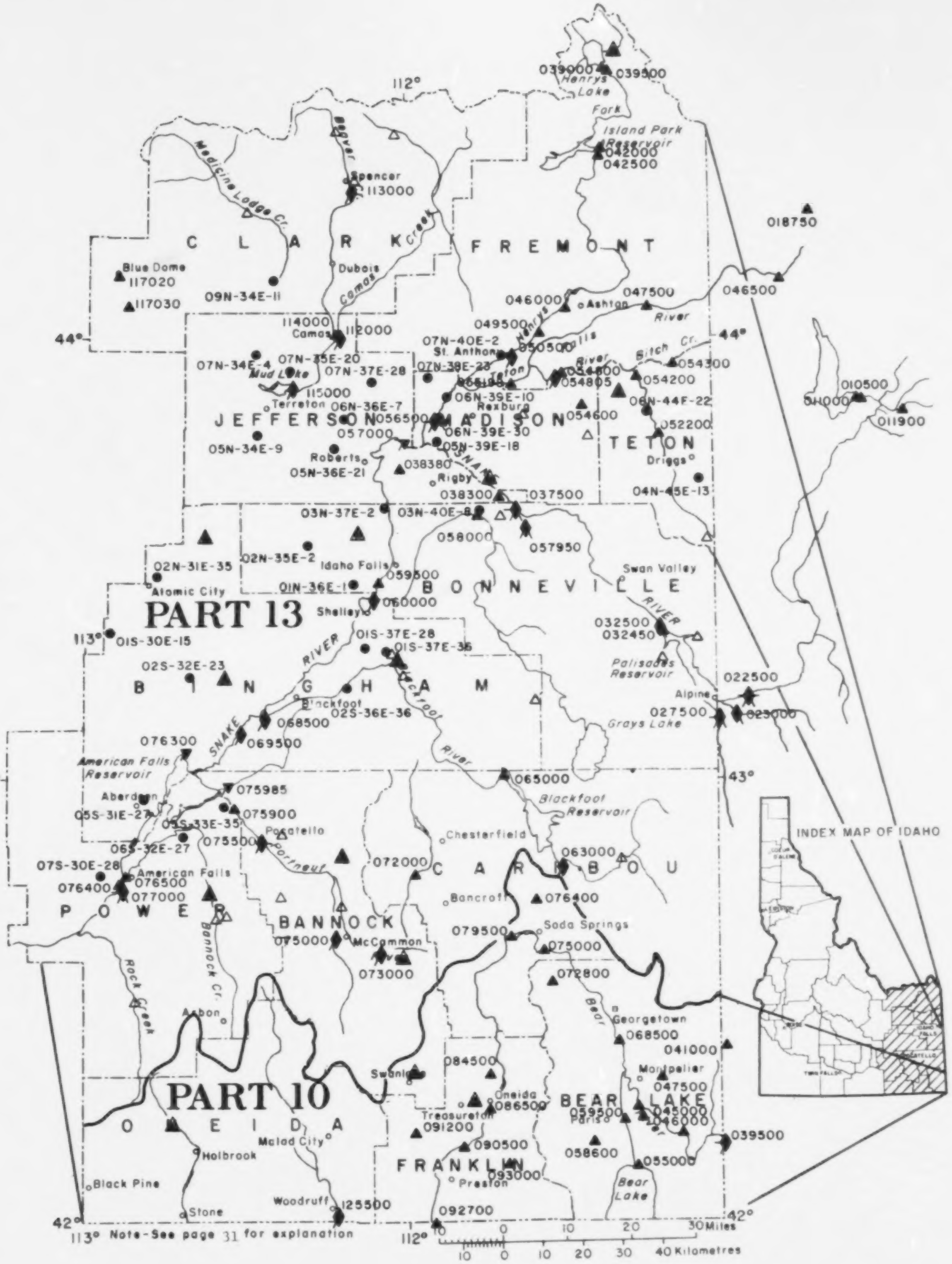

039000
039500
Henrys Lake
Fork
Island Park Reservoir
042000
042500
112°
Beaver
Medicine Lodge Cr.
Spencer
113000
018750
C L A R K
Creek
F R E M O N T
Blue Dome
117020
117030
09N-34E-11
Dubois
Camas
046000
Ashton
047500
046500
River
114000
Camas
112000
049500
Henrys
Falls
44°
07N-40E-2
St. Anthony
050500
River
Bitch Cr.
054300
07N-34E-4
07N-35E-20
Mud Lake
07N-37E-28
07N-38E-23
Teton
054800
054805
054200
010500
011000
011900
115000
Terreton
06N-36E-7
06N-39E-10
Rexburg
06N-44E-22
J E F F E R S O N
056500
M A D I S O N
054600
052200
057000
06N-39E-30
05N-34E-9
05N-39E-18
T E T O N
Roberts
05N-36E-21
038380
SNAKE
Driggs
Rigby
038300
037500
04N-45E-13
03N-37E-2
03N-40E-8
058000
057950
02N-31E-35
02N-35E-2
Idaho Falls
059500
Swan Valley
Atomic City
01N-36E-1
060000
B O N N E V I L L E
PART 13
Shelley
RIVER
113°
01S-30E-15
01S-37E-28
01S-37E-36
032500
032450
02S-32E-23
RIVER
Palisades Reservoir
B I N G H A M
Blackfoot
Alpine
022500
02S-36E-36
027500
023000
068500
Grays Lake
076300
SNAKE
069500
River
American Falls Reservoir
43°
065000
075985
Blackfoot Reservoir
Aberdeen
075900
05S-31E-27
05S-33E-35
Pocatello
Chesterfield
INDEX MAP OF IDAHO
06S-32E-27
075500
063000
07S-30E-28
Portneuf
072000
C A R I B O U
American Falls
076500
076400
077000
Bancroft
076400
P O W E R
Bannock Cr.
Soda Springs
BANNOCK
079500
075000
McCammon
075000
073000
072800
Rock Creek
Bear
Arbon
Georgetown
068500
041000
084500
Montpelier
Swan Lake
047500
PART 10
Oneida
086500
BEAR LAKE
045000
Treasureton
059500
Paris
046000
O N E I D A
091200
039500
Malad City
090500
Holbrook
058600
FRANKLIN
055000
093000
Black Pine
Preston
Bear Lake
Woodruff
125500
Stone
092700
42°
42°
113°
Note-See page 31 for explanation
112°
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres

FIGURE 9.--Location of data sites in southeast Idaho.

THE GREAT BASIN

BEAR RIVER BASIN

10039500 BEAR RIVER AT BORDER, WY

LOCATION.--Lat 42°12'40", long 111°03'11", in NE¼NE¼ sec.15, T.14 S., R.46 E., Bear Lake County, Idaho, Hydrologic Unit 16010102, on left bank 0.2 mi (0.3 km) west of Idaho-Wyoming State line, 0.5 mi (0.8 km) west of Border, and 2.1 mi (3.4 km) upstream from Thomas Fork.

DRAINAGE AREA.--2,486 mi^2 (6,439 km^2).

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,051.63 ft (1,844.537 m) above mean sea level, unadjusted.

REMARKS.--Records good except those for winter months, which are fair. Natural flow of stream affected by regulation by upstream reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--40 years, 424 ft^3/s (12.0 m^3/s), 307,200 acre-ft/yr (379 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,680 ft^3/s (104 m^3/s) May 11, 1952 (gage height, 8.89 ft or 2.710 m); minimum, 24 ft^3/s (0.68 m^3/s) Apr. 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 255 ft^3/s (7.22 m^3/s) Nov. 15 (gage height, 2.14 ft or 0.652 m); minimum, 24 ft^3/s (0.68 m^3/s) Apr. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	192	160	110	120	130	92	26	66	68	41	55
2	196	190	155	110	120	130	91	26	60	68	54	51
3	199	185	155	110	120	130	87	29	61	73	56	50
4	201	185	155	110	120	130	91	42	62	74	56	49
5	199	187	150	110	120	130	101	47	63	78	56	52
6	196	187	150	110	120	135	108	52	63	74	54	57
7	194	187	145	108	120	135	106	56	64	66	54	56
8	192	190	145	110	120	135	108	52	55	60	50	54
9	190	190	145	110	120	135	117	52	60	60	49	51
10	189	190	145	110	120	135	105	52	58	57	48	38
11	187	190	140	110	119	140	101	62	58	56	47	37
12	187	185	140	110	120	140	84	77	52	55	44	38
13	185	181	140	110	120	140	73	77	50	50	41	39
14	183	190	135	110	120	140	72	91	56	49	39	42
15	180	207	135	120	120	140	68	101	61	49	38	44
16	183	198	135	120	120	145	62	99	61	47	38	54
17	189	192	130	120	120	145	60	104	60	43	38	56
18	183	189	130	120	120	150	57	111	55	42	47	56
19	181	187	125	120	120	150	56	119	54	40	68	50
20	178	183	125	120	120	155	55	125	55	39	58	49
21	178	178	120	120	120	155	54	106	63	40	49	52
22	183	174	115	120	120	160	51	87	72	42	48	55
23	192	170	115	120	120	160	56	88	72	39	52	57
24	192	170	115	120	120	163	54	78	72	43	54	55
25	183	170	110	120	120	156	52	75	70	64	55	54
26	183	165	110	120	120	152	50	80	67	58	64	51
27	181	165	110	120	120	136	46	85	67	56	61	48
28	178	165	110	120	125	144	28	85	70	49	73	46
29	185	160	110	120	---	112	25	81	69	43	67	46
30	187	160	110	120	---	108	25	73	69	50	64	43
31	192	---	110	120	---	101	---	67	---	49	58	---
TOTAL	5824	5462	4075	3578	3364	4317	2135	2305	1865	1681	1641	1485
MEAN	188	182	131	115	120	139	71.2	74.4	62.2	54.2	52.9	49.5
MAX	201	207	160	120	125	163	117	125	72	78	81	57
MIN	178	160	110	108	119	101	25	26	50	39	38	37
AC-FT	11550	10830	8080	7100	6670	8560	4230	4570	3700	3330	3250	2950

CAL YR 1976 TOTAL 185540 MEAN 507 MAX 3310 MIN 110 AC-FT 368000
WTR YR 1977 TOTAL 37732 MEAN 103 MAX 207 MIN 25 AC-FT 74840

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10039500 BEAR RIVER AT BORDER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976 (discontinued).
WATER TEMPERATURES: October 1965 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,580 micromhos Dec. 27, 1975; minimum daily, 312 micromhos Apr. 3, 1969.
WATER TEMPERATURES: Maximum, 23.0°C Aug. 7, 1970, Aug. 9, 1972, July 7, 1973, July 24, 25, 1974; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
10...	1700	187	580	12.0	7	8.8	B1	250	45
13...	1040	186	560	6.0	--	--	--	--	--
NOV									
16...	0925	211	620	.0	--	--	--	--	--
21...	1400	187	570	2.0	2	9.1	<1	240	51
DEC									
20...	1530	A125	640	.0	4	10.8	B1	310	64
JAN									
07...	0950	108	600	.0	--	--	--	--	--
22...	1500	A120	570	.0	4	11.0	B5	260	47
FEB									
11...	1305	119	600	.0	--	--	--	--	--
19...	1600	A120	560	.0	7	10.4	B5	250	53
MAR									
20...	1500	A155	510	.0	4	10.8	B12	230	50
24...	1050	163	480	.0	--	--	--	--	--
APR									
16...	1430	62	620	15.0	5	10.2	B1	260	55
29...	1005	25	850	11.5	--	--	--	--	--
MAY									
12...	1410	79	625	14.0	--	--	--	--	--
13...	1500	77	600	15.5	6	10.0	B12	280	83
JUN									
08...	0925	57	600	19.0	--	--	--	--	--
10...	1430	58	580	19.0	3	9.8	B13	260	55
30...	0850	72	580	15.5	--	--	--	--	--
JUL									
21...	1500	40	570	24.0	6	9.1	24	240	60
AUG									
08...	1605	51	540	22.5	--	--	--	--	--
18...	1510	50	490	16.0	8	7.2	B700	240	76
SEP									
12...	1620	36	570	19.5	--	--	--	--	--
15...	1600	44	500	16.0	7	8.8	66	230	58

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

10039500 BEAR RIVER AT BORDER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT									
10...	63	23	23	.6	1.9	250	0	205	55
13...	--	--	--	--	--	--	--	--	--
NOV									
16...	--	--	--	--	--	--	--	--	--
21...	60	22	24	.7	1.9	230	0	189	73
DEC									
20...	76	28	27	.7	2.1	300	0	246	73
JAN									
07...	--	--	--	--	--	--	--	--	--
22...	65	23	20	.5	1.9	260	0	213	48
FEB									
11...	--	--	--	--	--	--	--	--	--
19...	63	23	20	.5	2.1	240	0	197	68
MAR									
20...	59	19	17	.5	1.4	220	0	180	63
24...	--	--	--	--	--	--	--	--	--
APR									
16...	65	23	26	.7	2.3	250	0	205	77
29...	--	--	--	--	--	--	--	--	--
MAY									
12...	--	--	--	--	--	--	--	--	--
13...	70	25	23	.6	1.9	240	0	197	80
JUN									
08...	--	--	--	--	--	--	--	--	--
10...	67	24	25	.7	2.1	250	0	205	72
30...	--	--	--	--	--	--	--	--	--
JUL									
21...	57	23	24	.7	1.5	220	0	180	66
AUG									
08...	--	--	--	--	--	--	--	--	--
18...	56	23	23	.7	1.2	200	0	164	67
SEP									
12...	--	--	--	--	--	--	--	--	--
15...	59	21	22	.6	1.6	210	0	172	72

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT								
10...	20	.3	6.9	319	.43	161	.32	.01
13...	--	--	--	--	--	--	--	--
NOV								
16...	--	--	--	--	--	--	--	--
21...	21	.4	6.2	323	.44	163	.11	.00
DEC								
20...	27	.3	9.4	390	.53	132	.18	.02
JAN								
07...	--	--	--	--	--	--	--	--
22...	20	.3	8.2	317	.43	103	.32	.01
FEB								
11...	--	--	--	--	--	--	--	--
19...	19	.3	8.2	323	.44	105	.18	.05
MAR								
20...	17	.3	6.4	291	.40	122	.07	.02
24...	--	--	--	--	--	--	--	--
APR								
16...	27	.2	6.0	349	.47	58.4	.09	.02
29...	--	--	--	--	--	--	--	--
MAY								
12...	--	--	--	--	--	--	--	--
13...	24	.2	6.7	351	.48	73.0	.00	.03
JUN								
08...	--	--	--	--	--	--	--	--
10...	27	.3	8.3	350	.48	54.8	.00	.06
30...	--	--	--	--	--	--	--	--
JUL								
21...	26	.2	9.4	313	.43	33.8	.07	.01
AUG								
08...	--	--	--	--	--	--	--	--
18...	30	.3	7.5	311	.42	42.0	.63	.06
SEP								
12...	--	--	--	--	--	--	--	--
15...	25	.2	6.7	513	.70	60.9	.00	.01

10039500 BEAR RIVER AT BORDER, WY--Continued

WATER QUALITY DATA. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA-TERIAL (UG/KG)
JUN 10...	1430	.0	1	.00	.00	.0	.0	0	.00	.0

DATE	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDO-SULFAN (UG/L)	TOTAL ENDRIN (UG/L)
JUN 10...	.00	.0	.00	.0	.00	.00	.0	.00	.00

DATE	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)
JUN 10...	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2.4-D (UG/L)	TOTAL 2.4.5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN 10...	.00	.00	.00	0	0	.00	.00	.00	.00

10041000 THOMAS FORK NEAR WYOMING-IDAHO STATE LINE

LOCATION.--Lat 42°24'10", long 111°01'30", in SE¼NW¼ sec.19, T.28 N., R.119 W., Lincoln County, Wyoming, Hydrologic Unit 16010102, on right bank 1.3 mi (2.1 km) upstream from State line, 1.5 mi (2.4 km) downstream from Giraffe Creek, and 3.5 mi (5.6 km) northeast of Geneva, Idaho.

DRAINAGE AREA.--113 mi² (293 km²).

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,280 ft or 1,914 m (from topographic map). Prior to Aug. 23, 1957, at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--28 years, 54.0 ft³/s (1.53 m³/s), 39,120 acre-ft/yr (48.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) May 14, 1971 (gage height, 3.84 ft or 1.170 m); minimum, 2.6 ft³/s (0.074 m³/s) Mar. 2, 1956, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft³/s (1.59 m³/s) Apr. 9 (gage height, 1.16 ft or 0.354 m), no peak above base of 150 ft³/s (4.25 m³/s); minimum, 4.6 ft³/s (0.13 m³/s) Aug. 15, 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	16	15	12	12	12	14	13	12	7.1	5.9	7.0
2	19	16	15	11	11	12	14	13	11	7.9	5.8	6.7
3	22	16	15	12	11	13	14	12	11	8.6	5.8	6.6
4	20	16	15	12	11	13	14	13	11	9.1	5.9	6.7
5	19	16	15	13	11	13	15	13	10	9.7	6.3	6.4
6	19	16	15	14	13	13	19	21	10	8.1	6.6	6.3
7	19	16	15	15	14	12	22	21	10	7.5	6.5	6.1
8	19	16	14	14	14	11	31	17	10	7.1	5.9	6.0
9	19	15	14	15	14	11	37	14	12	7.1	5.6	5.8
10	18	15	15	15	14	12	32	14	11	6.8	5.5	6.0
11	18	15	15	15	14	13	26	14	11	6.7	5.3	6.0
12	18	15	15	14	14	13	23	13	10	6.5	5.1	6.1
13	18	20	15	12	14	13	20	12	9.5	6.3	5.0	6.0
14	17	25	15	12	14	13	18	13	9.0	6.3	5.1	6.2
15	17	22	15	10	14	13	17	12	8.8	6.2	5.0	7.8
16	17	18	15	10	14	13	18	14	8.8	6.1	5.0	8.1
17	17	17	15	10	14	13	18	15	8.8	6.1	4.9	7.2
18	17	16	15	10	14	13	16	15	8.6	6.0	11	7.1
19	17	15	15	10	14	14	14	17	8.8	6.1	10	6.8
20	17	15	15	8.0	13	14	14	19	11	6.3	7.4	6.8
21	17	15	15	6.0	12	14	14	17	11	7.5	6.8	7.0
22	17	15	15	8.0	11	15	14	15	9.8	6.9	6.8	7.7
23	17	15	15	10	12	16	14	14	9.3	7.0	7.0	9.4
24	17	15	15	10	13	16	14	14	9.1	9.3	6.7	8.0
25	17	15	15	12	13	15	14	15	8.3	10	8.2	7.5
26	18	13	15	10	13	14	14	14	7.9	7.8	16	7.2
27	17	15	13	11	13	14	14	15	7.7	7.2	11	7.0
28	17	15	13	13	13	14	13	16	7.4	7.2	8.7	6.9
29	17	15	13	13	---	14	13	14	7.2	6.5	8.0	6.9
30	17	15	13	13	---	14	13	13	7.1	6.2	7.5	8.3
31	17	---	13	13	---	14	---	12	---	6.1	7.2	---
TOTAL	553	484	453	363.0	364	414	533	454	287.1	223.3	217.7	207.6
MEAN	17.8	16.1	14.6	11.7	13.0	13.4	17.8	14.6	9.57	7.20	7.02	6.92
MAX	22	25	15	15	14	16	37	21	12	10	16	9.4
MIN	17	13	13	6.0	11	11	13	12	7.1	6.0	4.9	5.8
AC-FT	1100	960	899	720	722	821	1060	901	569	443	432	412

CAL YR 1976 TOTAL 23161.0 MEAN 63.3 MAX 567 MIN 11 AC-FT 45940
WTR YR 1977 TOTAL 4553.7 MEAN 12.5 MAX 37 MIN 4.9 AC-FT 9030

10044000 BEAR RIVER AT HARER, ID

LOCATION.--Lat 42°11'50", long 111°10'05", in NW¼ sec.23, T.14 S., R.45 E., Bear Lake County, Hydrologic Unit 16010102, on right bank 400 ft (122 m) downstream from Sheep Creek, 0.8 mi (1.3 km) north of Harer siding on Union Pacific (Oregon Short Line) Railroad, and 5 mi (8 km) southeast of Dingle.

DRAINAGE AREA.--2,839 mi² (7,353 km²).

PERIOD OF RECORD.--June 1913 to current year. Monthly discharge only October 1916 to December 1918 published in WSP 1314.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,000 ft or 1,830 m (from topographic map). Prior to Aug. 24, 1914, nonrecording gage at site 1,500 ft (457 m) downstream at different datum.

REMARKS.--Records good except those for winter months, which are fair. Natural flow of stream affected by upstream reservoirs, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--64 years, 520 ft³/s (14.7 m³/s), 376,700 acre-ft/yr (464 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,440 ft³/s (126 m³/s) May 7, 1952 (gage height, 11.04 ft or 3.365 m); minimum daily, 26 ft³/s (0.74 m³/s) Aug. 21-27, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 294 ft³/s (8.33 m³/s) Mar. 27; minimum, 53 ft³/s (1.50 m³/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	255	206	146	137	140	165	61	109	95	59	85
2	233	259	204	150	148	146	189	61	109	97	60	77
3	252	256	203	159	150	153	163	59	104	98	61	77
4	246	252	202	166	150	161	168	57	98	99	77	77
5	243	250	203	166	150	157	171	65	95	104	84	76
6	253	239	194	159	148	163	173	78	94	109	85	75
7	235	228	210	150	147	167	166	82	95	108	86	81
8	229	228	211	147	144	175	165	87	96	102	86	88
9	230	227	212	149	142	185	169	86	91	95	79	85
10	231	226	205	148	142	191	173	83	90	92	73	85
11	233	226	184	145	145	193	164	88	91	86	71	86
12	236	237	180	139	148	175	148	96	90	83	69	84
13	242	210	174	141	150	171	130	105	89	84	66	78
14	244	225	156	149	153	179	122	111	87	81	60	69
15	239	217	146	159	154	176	116	119	83	77	58	70
16	231	256	171	166	156	163	119	127	83	75	56	76
17	245	236	155	169	153	185	113	127	80	70	58	79
18	243	236	157	172	154	171	104	143	92	66	71	82
19	238	225	162	173	157	175	98	168	97	63	82	82
20	231	223	153	168	157	163	97	182	94	65	89	81
21	228	216	138	159	158	193	96	185	94	67	91	76
22	233	199	136	158	162	197	92	165	94	65	83	79
23	241	191	143	161	164	204	89	154	99	61	74	83
24	254	185	148	163	163	197	89	156	102	59	72	86
25	253	211	148	157	160	204	88	148	100	62	78	82
26	251	221	152	147	145	219	87	137	99	68	87	78
27	246	234	156	136	137	222	88	137	96	77	91	75
28	244	258	151	135	130	194	85	139	92	72	97	73
29	241	195	148	135	---	173	75	143	95	66	99	74
30	249	204	149	136	---	163	62	129	95	61	96	85
31	253	---	144	141	---	175	---	118	---	56	93	---
TOTAL	7465	6825	5301	4749	4204	5530	3764	3596	2833	2463	2391	2384
MEAN	241	228	171	153	150	178	125	116	94.4	79.5	77.1	79.5
MAX	254	259	212	173	164	222	189	185	109	109	99	88
MIN	228	185	136	135	130	140	62	57	80	56	56	69
AC-FT	14810	13540	10510	9420	8340	10970	7470	7130	5620	4890	4740	4730

CAL YR 1976 TOTAL 217141 MEAN 593 MAX 3600 MIN 136 AC-FT 430700
WTR YR 1977 TOTAL 51505 MEAN 141 MAX 259 MIN 56 AC-FT 102200

10046000 RAINBOW INLET CANAL NEAR DINGLE, ID

LOCATION.--Lat 42°13'48", long 111°17'43", in SE¼ sec.3, T.14 S., R.44 E., Bear Lake County, Hydrologic Unit 16010201, on left bank 1.5 mi (2.4 km) west of Dingle and 1.8 mi (2.9 km) downstream from headworks at Stewart Dam.

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only prior to October 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 5,922.0 ft (1,805.03 m) above mean sea level (by topographic survey). Prior to Oct. 1, 1923, at site 300 ft (91 m) downstream at different datum; Oct. 1, 1923, to Oct. 27, 1944, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good. Canal diverts from Bear River at Stewart Dam in NE¼ sec.34, T.13 S., R.44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough entering at the station and by seepage and surplus water from irrigation.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--55 years, 339 ft³/s (9.60 m³/s), 245,600 acre-ft/yr (303 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,180 ft³/s (118 m³/s) May 7, 1952 (gage height, 8.62 ft or 2.627 m); no flow Apr. 28, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft³/s (9.35 m³/s) Nov. 6 (gage height, 1.99 ft or 0.607 m); no flow Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	194	149	105	112	109	100	7.0	14	6.6	2.6	46
2	143	195	159	105	105	112	104	11	6.3	8.1	6.8	54
3	146	196	151	109	107	105	107	7.9	7.8	14	8.7	44
4	148	197	147	120	106	109	108	.32	5.7	8.8	12	65
5	166	197	148	131	105	100	109	.20	5.1	6.8	9.1	62
6	173	225	157	142	107	120	112	7.3	8.2	7.0	11	48
7	189	216	152	124	100	117	107	11	2.0	7.3	8.9	41
8	184	196	159	111	103	111	113	8.1	2.5	6.0	3.9	39
9	186	194	132	121	105	115	97	11	.96	2.5	5.9	38
10	193	200	132	103	103	101	88	6.2	8.3	6.3	3.8	37
11	201	203	122	104	109	104	99	13	8.7	11	6.3	35
12	202	195	125	104	116	99	89	14	3.8	11	8.7	34
13	208	177	130	107	109	93	77	9.8	12	4.5	16	33
14	212	157	126	104	103	126	47	4.7	14	5.7	14	28
15	205	183	113	109	113	139	50	.30	11	6.3	10	20
16	198	208	110	107	112	119	44	4.9	11	6.9	.53	22
17	194	206	124	113	110	119	39	5.7	8.3	6.7	5.3	18
18	204	200	105	112	110	116	33	9.2	13	6.4	8.4	19
19	206	211	118	121	118	114	27	16	15	5.7	16	20
20	203	214	102	142	131	116	21	14	13	5.4	16	13
21	200	212	99	127	131	111	16	12	7.4	8.6	16	22
22	201	203	92	117	134	114	9.7	6.5	14	9.2	12	33
23	210	199	94	117	128	128	7.6	4.7	15	3.1	6.1	31
24	216	170	106	151	130	131	6.2	.60	16	5.1	1.6	21
25	214	169	112	154	108	141	4.8	6.1	15	6.8	.04	11
26	201	201	100	149	104	137	5.9	8.0	13	7.1	12	30
27	207	186	105	120	140	129	6.8	15	12	10	16	31
28	204	137	98	115	119	137	4.6	14	11	7.9	19	23
29	195	164	106	109	---	120	1.5	12	6.1	3.8	26	13
30	190	137	107	104	---	107	.50	8.4	6.3	2.2	30	17
31	195	---	107	109	---	94	---	8.0	---	2.8	36	---
TOTAL	5932	5742	3787	3666	3178	3593	1634.60	256.92	286.46	209.6	348.67	948
MEAN	191	191	122	118	114	116	54.5	8.29	9.55	6.76	11.2	31.6
MAX	216	225	159	154	140	141	113	16	16	14	36	65
MIN	138	137	92	103	100	93	.50	.20	.96	2.2	.04	11
AC-FT	11770	11390	7510	7270	6300	7130	3240	510	568	416	692	1880

CAL YR 1976 TOTAL 174056.00 MEAN 476 MAX 3440 MIN 42 AC-FT 345200
WTR YR 1977 TOTAL 29582.25 MEAN 81.0 MAX 225 MIN .04 AC-FT 58680

10046500 BEAR RIVER BELOW STEWART DAM, NEAR MONTPELIER, ID

LOCATION.--Lat 42°15'14", long 111°17'35", in NE¼ sec.34, T.13 S., R.44 E., Bear Lake County, Hydrologic Unit 16010201, on right bank 300 ft (91 m) downstream from Stewart Dam and 4.5 mi (7.2 km) south of Montpelier.

DRAINAGE AREA.--2,853 mi² (7,389 km²).

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only January 1922 to September 1945, published in WSP 1314.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,950 ft or 1,814 m (from topographic map).

REMARKS.--Records good. Water diverted at Stewart Dam through Rainbow inlet canal (see sta 10046000) for storage in Bear Lake.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--55 years, 46.9 ft³/s (1.33 m³/s), 34,000 acre-ft/yr (41.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,050 ft³/s (86.4 m³/s) June 3, 1923; no flow July 15, 1956, July 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28 ft³/s (0.79 m³/s) Sept. 1 (gage height, 1.41 ft or 0.430 m); no flow July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	6.7	5.9	5.3	5.4	7.2	6.6	.20	1.5	.17	.05	25
2	7.2	6.6	5.9	5.4	5.5	7.1	6.5	.18	1.3	.16	.07	21
3	7.1	6.5	5.9	5.6	5.3	6.9	6.9	.15	1.3	.14	.02	16
4	7.1	6.4	5.9	5.9	5.4	7.1	7.3	.51	1.3	.10	.04	14
5	7.1	6.3	5.8	5.9	5.5	7.3	7.5	.87	1.0	.06	.07	4.6
6	7.3	6.4	5.9	5.8	5.5	7.3	7.4	1.4	.79	.07	.10	3.9
7	7.4	6.8	5.9	5.6	5.5	7.1	7.7	1.7	1.0	.08	.12	3.5
8	7.5	6.6	5.9	5.5	5.5	6.8	7.1	2.7	1.2	.10	.13	3.9
9	7.5	6.5	5.8	5.4	5.5	6.8	5.6	4.0	1.4	.12	.14	4.1
10	7.6	6.6	5.8	5.2	5.5	6.7	4.9	4.0	1.4	.14	.19	4.0
11	7.7	6.7	5.8	5.0	5.5	6.6	4.4	4.0	1.5	.16	.21	4.4
12	7.6	6.8	5.8	5.1	5.6	6.6	4.0	3.9	2.8	.09	.21	4.7
13	7.5	6.5	5.9	5.1	5.4	6.5	3.4	3.9	3.7	0	.16	4.5
14	7.4	6.2	5.7	5.2	5.4	6.4	3.0	3.8	2.5	.02	.13	4.4
15	7.3	6.2	5.6	5.3	5.4	6.4	2.8	3.7	1.8	.04	.11	4.2
16	7.4	6.3	5.6	5.6	5.6	6.3	2.3	3.8	1.5	.07	.13	4.1
17	7.4	6.4	5.5	5.6	5.7	6.2	2.3	3.7	1.3	.09	.36	4.0
18	7.4	6.4	5.6	5.7	5.9	6.1	2.0	3.9	1.0	.12	.75	3.8
19	7.2	6.4	5.6	5.7	5.9	6.1	1.4	3.8	.84	.16	1.1	3.7
20	7.0	6.3	5.2	5.6	6.2	6.3	1.4	3.8	.66	.13	1.3	3.5
21	6.9	6.3	5.1	5.6	6.4	6.2	1.3	3.8	.29	.10	1.4	2.1
22	6.9	6.2	5.0	5.4	6.4	6.6	1.3	3.8	.10	.09	1.6	1.6
23	7.0	6.1	5.0	5.3	6.7	7.0	1.1	3.6	.10	.07	1.8	1.5
24	7.0	6.1	4.9	5.3	6.9	7.3	.84	3.3	.10	.06	2.0	1.9
25	7.1	6.1	4.8	5.4	6.9	7.3	.63	3.0	.11	.07	2.4	2.8
26	7.1	6.2	4.8	5.5	7.0	7.2	.68	2.7	.17	.08	4.1	2.0
27	7.1	6.2	4.7	5.5	7.0	7.6	.66	2.4	.21	.12	4.9	1.5
28	7.0	6.3	4.8	5.5	7.1	7.4	.72	2.2	.20	.11	8.7	1.8
29	7.0	6.3	5.0	5.5	---	6.8	.72	2.1	.20	.09	14	4.6
30	6.9	6.1	5.3	5.5	---	6.2	.43	2.0	.19	.08	9.9	6.7
31	6.8	---	5.3	5.4	---	6.4	---	1.9	---	.06	12	---
TOTAL	223.7	191.5	169.7	169.4	165.6	209.8	102.68	84.81	31.46	2.95	68.19	167.8
MEAN	7.22	6.38	5.47	5.46	5.91	6.77	3.43	2.74	1.05	.095	2.20	5.59
MAX	7.7	6.8	5.9	5.9	7.1	7.6	7.7	4.0	3.7	.17	14	25
MIN	6.8	6.1	4.7	5.0	5.3	6.1	.43	.15	.10	0	.02	1.5
AC-FT	444	380	337	336	328	416	204	168	62	5.9	135	333

CAL YR 1976 TOTAL 3392.40 MEAN 9.27 MAX 99 MIN 3.8 AC-FT 6730
WTR YR 1977 TOTAL 1587.79 MEAN 4.35 MAX 25 MIN 0 AC-FT 3150

10047500 MONTPELIER CREEK AT IRRIGATORS WEIR, NEAR MONTPELIER, ID

LOCATION.--Lat 42°19'47", long 111°14'12", in SW¼SE¼ sec.31, T.12 S., R.45 E., Bear Lake County, Hydrologic Unit 16010201, Caribou National Forest, on right bank 3 mi (5 km) east of Montpelier and 3.5 mi (5.6 km) downstream from South Fork.

DRAINAGE AREA.--49.5 mi² (128.2 km²).

PERIOD OF RECORD.--October 1942 to current year. Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 6,210 ft or 1,893 m (from topographic map).

REMARKS.--Records excellent. One small diversion above station for irrigation. Flow regulated by Montpelier Creek reservoir (capacity, 4,050 acre-ft or 5.00 hm³) since December 1970.

AVERAGE DISCHARGE.--28 years (1943-70), 21.2 ft³/s (0.600 m³/s), 15,360 acre-ft/yr (18.9 hm³/yr). 7 years (1971-77), 27.8 ft³/s (0.787 m³/s), 20,140 acre-ft/yr (24.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 224 ft³/s (6.34 m³/s) May 18, 1950; maximum gage height, 3.06 ft (0.933 m) Apr. 28, 1962; minimum discharge, 0.40 ft³/s (0.011 m³/s) Jan. 28, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft³/s (1.59 m³/s) June 18 (gage height, 1.56 ft or 0.476 m); minimum, 2.7 ft³/s (0.076 m³/s) Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	12	10	6.7	5.8	5.6	5.7	6.7	6.4	29	5.0	5.0
2	18	12	10	6.7	5.4	5.6	5.8	6.6	6.4	29	4.9	4.8
3	19	12	10	6.7	5.4	5.6	5.7	6.4	7.6	25	4.9	4.8
4	18	12	10	6.7	5.4	5.6	5.9	6.6	9.3	22	4.9	4.8
5	18	12	10	6.7	5.4	5.6	6.2	6.6	13	22	4.8	4.8
6	18	11	10	7.0	5.4	5.6	6.5	7.4	14	21	4.9	4.7
7	19	11	10	7.6	5.4	5.6	6.6	7.0	14	21	4.7	4.7
8	19	11	10	7.1	5.4	5.6	6.7	6.7	22	21	4.6	4.7
9	19	11	10	6.9	5.4	5.6	7.0	6.6	28	21	4.6	4.8
10	19	11	10	8.1	5.4	5.6	7.0	6.6	33	17	4.6	4.8
11	19	11	10	8.5	5.1	5.6	6.7	6.5	33	17	4.6	4.9
12	19	11	10	7.0	5.4	5.6	6.5	6.4	36	18	4.5	4.8
13	19	11	10	6.7	5.4	5.6	6.5	6.4	40	22	4.5	4.9
14	19	11	9.9	6.7	5.4	5.6	6.4	6.6	47	24	4.4	5.0
15	19	11	9.9	6.7	5.4	5.6	6.4	6.4	48	24	4.4	5.2
16	19	11	9.5	6.7	5.4	5.6	6.4	7.0	48	24	4.4	5.1
17	19	11	7.9	6.7	5.4	5.6	6.4	7.1	48	24	4.4	5.0
18	20	11	7.7	6.7	5.4	5.6	6.4	7.1	55	23	6.5	5.0
19	19	11	7.6	6.7	5.6	5.6	6.4	7.4	53	21	5.4	5.0
20	19	11	7.1	6.7	5.6	5.5	6.4	7.4	48	20	4.9	4.9
21	19	11	7.5	6.7	5.6	5.4	6.4	6.9	48	21	4.9	4.9
22	19	11	8.1	6.8	5.6	5.6	6.4	6.8	35	11	5.2	5.1
23	19	11	8.2	6.8	5.6	5.8	6.3	7.2	20	7.6	5.0	5.1
24	19	11	7.1	6.8	5.6	5.9	6.4	7.0	19	7.6	5.0	5.0
25	19	11	6.9	6.3	5.6	5.6	6.4	6.9	18	8.0	5.2	4.9
26	19	11	7.0	6.2	5.6	5.5	6.4	5.7	18	10	6.9	4.9
27	19	11	6.9	6.5	5.6	5.6	6.5	7.0	18	10	5.5	4.9
28	19	12	6.8	6.3	5.6	5.6	6.5	7.1	26	9.3	5.3	4.9
29	19	12	6.7	6.1	---	5.6	6.5	6.7	29	5.5	5.1	4.9
30	17	11	6.7	5.9	---	5.6	6.4	6.6	29	5.3	5.1	5.3
31	12	---	6.6	5.9	---	5.6	---	6.4	---	5.2	5.0	---
TOTAL	576	337	268.1	209.6	153.3	173.7	191.8	209.8	869.7	545.5	154.1	147.6
MEAN	18.6	11.2	8.65	6.76	5.48	5.60	6.39	6.77	29.0	17.6	4.97	4.92
MAX	20	12	10	8.5	5.8	5.9	7.0	7.4	55	29	6.9	5.3
MIN	12	11	6.6	5.9	5.1	5.4	5.7	5.7	6.4	5.2	4.4	4.7
AC-FT	1140	668	532	416	304	345	380	416	1730	1080	306	293

CAL YR 1976 TOTAL 9871.8 MEAN 27.0 MAX 95 MIN 6.6 AC-FT 19580
WTR YR 1977 TOTAL 3836.2 MEAN 10.5 MAX 55 MIN 4.4 AC-FT 7610

10055500 BEAR LAKE AT LIFTON, NEAR ST. CHARLES, ID

LOCATION.--Lat 42°07'16", long 111°18'52", in NE¼ sec.16, T.15 S., R.44 E., Bear Lake County, Hydrologic Unit 16010201, in Lifton pumping plant of Utah Power & Light Company and 3.5 mi (5.6 km) east of St. Charles.

DRAINAGE AREA.--435 mi² (1,127 km²), approximately (does not include Mud Lake drainage).

PERIOD OF RECORD.--October 1903 to June 1906 (elevations only, published as "at Fish Haven"), January 1921 to current year. Monthly contents only January 1921 to September 1945 published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 5,900 ft (1,798.3 m) above mean sea level, unadjusted (levels by Utah Power & Light Co.). October 1903 to June 1906, nonrecording gage at different site and datum.

REMARKS.--Outflow regulated by gates and pumps at north end of Bear Lake and by gates in dike at north end of Mud Lake, a shallow interconnected lake. Principal inflow to Bear Lake is from Bear River through Rainbow inlet (see sta 10046000) and Dingle inlet canals into Mud Lake, from which the inflow can enter into Bear Lake either through the pumping plant or through an opening in the dividing causeway. The inflow can be routed directly into the Outlet canal (see sta 10059500). Usable capacity of Bear Lake is 1,421,000 acre-ft (1.75 km³) between elevations 5,902.00 or 1,798.930 m (lower limit of pumps) and 5,923.65 ft or 1,805.529 m (upper limit of storage with existing facilities). Water is used for irrigation and power development. Figures given herein represent usable contents.

COOPERATION.--Gage heights furnished by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,423,000 acre-ft (1.75 km³) June 10, 1923 (elevation, 5,923.68 ft or 1,805.538 m); no usable contents Nov. 9-19, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,168,000 acre-ft (1.44 km³) Oct. 1 (elevation, 5,920.04 ft or 1,804.428 m); minimum, 786,100 acre-ft (0.97 km³) Sept. 21, 22.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

5,914	754,000	5,917	956,900	5,920	1,165,000
5,915	821,000	5,918	1,026,000	5,921	1,235,000
5,916	888,600	5,919	1,095,000	5,922	1,305,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1168000	1130000	1094000	1059000	1031000	1042000	1058000	1049000	1024000	946000	850700	798900
2	1166000	1129000	1092000	1058000	1031000	1042000	1058000	1047000	1023000	942600	848700	798200
3	1163000	1129000	1091000	1058000	1031000	1043000	1058000	1047000	1022000	939800	846000	797500
4	1159000	1128000	1090000	1057000	1031000	1044000	1058000	1046000	1022000	937800	843900	797500
5	1158000	1127000	1088000	1056000	1031000	1045000	1058000	1045000	1021000	934300	841900	796800
6	1157000	1127000	1087000	1054000	1031000	1045000	1058000	1045000	1020000	931600	839900	796200
7	1157000	1125000	1086000	1052000	1031000	1046000	1058000	1045000	1020000	927500	837900	795500
8	1155000	1125000	1085000	1051000	1032000	1047000	1058000	1044000	1018000	924100	835200	794800
9	1155000	1123000	1084000	1049000	1032000	1047000	1058000	1042000	1014000	920000	832500	794200
10	1155000	1122000	1083000	1049000	1032000	1047000	1058000	1042000	1013000	915200	829100	793500
11	1154000	1120000	1082000	1048000	1032000	1047000	1058000	1041000	1011000	911100	825700	792800
12	1153000	1120000	1082000	1047000	1033000	1047000	1058000	1040000	1009000	907000	821700	792100
13	1152000	1118000	1081000	1045000	1033000	1047000	1058000	1040000	1004000	904300	817700	791500
14	1152000	1117000	1081000	1044000	1033000	1048000	1058000	1038000	998900	901600	814300	790800
15	1152000	1115000	1080000	1042000	1033000	1049000	1058000	1033000	996200	898200	810900	790100
16	1152000	1114000	1079000	1042000	1034000	1049000	1058000	1029000	993400	895000	807600	789500
17	1151000	1113000	1076000	1041000	1034000	1050000	1058000	1027000	990600	890700	804200	788800
18	1151000	1112000	1075000	1040000	1035000	1050000	1058000	1024000	987900	887200	804200	788100
19	1151000	1111000	1070000	1039000	1035000	1051000	1058000	1024000	985100	883200	804200	787400
20	1150000	1109000	1072000	1038000	1036000	1051000	1058000	1024000	983800	879100	803600	786800
21	1150000	1108000	1072000	1038000	1036000	1051000	1058000	1024000	980300	875700	803600	786100
22	1150000	1106000	1071000	1037000	1036000	1052000	1058000	1024000	976200	873000	803600	786100
23	1150000	1105000	1071000	1037000	1037000	1053000	1058000	1024000	970700	869600	802900	786800
24	1150000	1104000	1070000	1036000	1038000	1054000	1058000	1024000	967200	866900	802900	787400
25	1148000	1103000	1067000	1036000	1038000	1054000	1057000	1024000	963800	864900	802200	788100
26	1145000	1102000	1066000	1035000	1039000	1055000	1056000	1024000	960400	862900	802200	788800
27	1140000	1100000	1064000	1034000	1040000	1056000	1055000	1024000	957000	861500	802200	788800
28	1136000	1099000	1063000	1033000	1040000	1056000	1054000	1024000	955600	859500	801500	788100
29	1134000	1097000	1062000	1033000	---	1057000	1052000	1024000	952800	857500	800900	786800
30	1131000	1095000	1061000	1032000	---	1057000	1050000	1024000	949400	855400	800200	786100
31	1131000	---	1060000	1031000	---	1058000	---	1024000	---	853400	799500	---
MAX	1168000	1130000	1094000	1059000	1040000	1058000	1058000	1049000	1024000	946000	850700	798900
MIN	1131000	1095000	1060000	1031000	1031000	1042000	1050000	1024000	949400	853400	799500	786100
(†)	5919.51	5919.00	5918.49	5918.08	5918.21	5918.46	5918.35	5917.97	5916.89	5915.48	5914.68	5914.48
(‡)	-38000	-36000	-35000	-29000	+9000	+18000	-8000	-26000	-74600	-96000	-53900	-13400

CAL YR 1976....................‡ -35000
WTR YR 1977....................‡ -382900

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

10058600 BLOOMINGTON CREEK AT BLOOMINGTON, ID

LOCATION.--Lat 42°11'05", long 111°25'30", in SE¼SE¼ sec.21, T.14 S., R.43 E., Bear Lake County, Hydrologic Unit 16010201, on left bank 1 mi (2 km) west of Bloomington.

DRAINAGE AREA.--24.0 mi² (62.2 km²).

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder 4 ft (1.2 m) upstream from 8-ft (2.44-m) concrete flume. Altitude of gage is 6,070 ft or 1,850 m (from topographic map).

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 29.2 ft³/s (0.827 m³/s), 21,160 acre-ft/yr (26.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 248 ft³/s (7.02 m³/s) June 11, 1971 (gage height, 4.66 ft or 1.420 m); minimum, 9.4 ft³/s (0.27 m³/s) Jan. 27, 1961, Feb. 26, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft³/s (0.71 m³/s) Apr. 26 (gage height, 1.78 ft or 0.543 m); minimum, 13 ft³/s (0.37 m³/s) Aug. 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 17, Sept. 7, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	20	18	16	14	14	14	17	18	14	13	14
2	23	20	18	16	14	14	14	17	17	14	13	13
3	25	20	18	16	14	13	14	16	17	14	13	13
4	23	20	17	16	14	14	14	17	17	14	13	13
5	22	20	17	16	14	14	17	17	16	14	13	13
6	22	20	17	16	14	14	17	21	16	14	13	13
7	22	20	17	15	14	14	16	18	16	14	13	13
8	22	20	17	15	14	14	17	18	16	14	13	13
9	22	20	17	15	14	14	17	18	17	14	13	13
10	22	20	17	15	14	14	17	18	16	13	13	13
11	21	20	17	15	14	14	16	17	16	13	13	14
12	21	19	17	15	14	14	16	16	15	13	13	13
13	21	18	17	15	14	14	16	16	15	13	13	13
14	21	19	16	15	14	14	16	16	15	13	13	13
15	21	20	16	15	14	14	15	16	14	13	13	14
16	21	19	16	15	14	14	17	17	14	13	13	13
17	21	19	16	15	14	14	17	17	14	13	13	14
18	21	19	16	15	14	14	15	18	14	13	15	14
19	21	19	16	14	13	14	15	19	14	13	14	13
20	21	18	16	14	14	14	15	18	15	13	14	13
21	21	18	16	14	14	14	16	17	15	14	14	13
22	21	18	16	14	14	14	17	19	14	14	13	14
23	21	18	16	14	14	14	18	20	14	14	13	14
24	21	18	16	14	14	14	18	21	14	14	14	14
25	21	18	16	14	14	14	19	22	14	14	14	13
26	21	17	16	14	14	14	21	20	14	14	16	13
27	20	17	16	14	14	14	21	21	14	14	14	13
28	21	17	16	14	14	14	19	21	14	14	14	13
29	21	17	16	14	---	14	18	20	14	13	14	13
30	21	18	16	14	---	14	17	19	14	13	14	14
31	20	---	16	14	---	14	---	18	---	13	13	---
TOTAL	664	566	512	458	391	433	499	565	453	420	417	399
MEAN	21.4	18.9	16.5	14.8	14.0	14.0	16.6	18.2	15.1	13.5	13.5	13.3
MAX	25	20	18	16	14	14	21	22	18	14	16	14
MIN	20	17	16	14	13	13	14	16	14	13	13	13
AC-FT	1320	1120	1020	908	776	859	990	1120	899	833	827	791

CAL YR 1976 TOTAL 11139 MEAN 30.4 MAX 122 MIN 16 AC-FT 22090
WTR YR 1977 TOTAL 5777 MEAN 15.8 MAX 25 MIN 13 AC-FT 11460

10059500 BEAR LAKE OUTLET CANAL NEAR PARIS, ID

LOCATION.--Lat 42°13'00", long 111°20'35", in SW¼ sec.8, T.14 S., R.44 E., Bear Lake County, Hydrologic Unit 16010201, on right bank 2,000 ft (610 m) downstream from headgates (at dike), and 3 mi (5 km) southeast of Paris.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only January 1922 to September 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Elevation of gage datum is 5,912.6 ft (1,802.16 m) above mean sea level (from topographic survey).

REMARKS.--Records good. Flow regulated by Bear Lake (see sta 10055500).

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--55 years, 377 ft^3/s (10.7 m^3/s), 273,100 acre-ft/yr (337 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,870 ft^3/s (53.0 m^3/s) Aug. 8, 1924; minimum daily, 1 ft^3/s (0.28 cu m/s) for many days in 1937, 1954, 1959, 1961, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,560 ft^3/s (44.2 m^3/s) June 18 (gage height, 18.95 ft or 5.776 m); minimum daily, 4.7 ft^3/s (0.06 m^3/s) Apr. 9-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	758	693	696	646	41	5.0	4.8	1090	20	1480	890	28
2	750	700	688	632	5.0	5.0	4.8	1060	20	1480	838	27
3	742	697	702	667	5.0	5.0	4.8	1150	20	1460	863	25
4	654	693	693	659	5.0	5.0	4.8	1290	20	1440	943	25
5	433	691	701	670	5.0	5.0	4.8	1370	20	1460	882	25
6	11	688	702	728	5.0	5.0	4.8	1420	83	1460	924	20
7	6.8	690	681	650	5.0	5.0	4.8	1420	390	1440	902	18
8	6.8	692	683	670	5.0	5.0	4.8	1420	785	1500	881	18
9	6.8	697	688	707	5.0	5.0	4.7	1400	1070	1460	932	18
10	6.8	697	688	667	5.0	5.0	4.7	1380	1100	1460	1020	18
11	6.8	695	685	675	5.0	5.0	4.7	1440	1100	1460	1090	18
12	6.8	706	682	672	5.0	5.0	4.7	1380	1260	1470	1200	15
13	6.8	694	677	673	5.0	5.0	4.7	1390	1430	1450	1250	16
14	6.8	688	675	676	5.0	5.0	4.7	1340	1460	1450	1270	16
15	6.8	694	670	681	5.0	5.0	4.7	1160	1460	1460	1280	16
16	6.8	691	666	677	5.0	5.0	4.7	1040	1540	1480	1260	16
17	6.8	685	661	682	5.0	5.0	4.7	735	1530	1470	1260	16
18	6.8	680	649	687	5.0	5.0	4.7	438	1540	1460	962	16
19	6.8	690	677	670	5.0	5.0	4.7	362	1530	1480	270	16
20	6.8	697	685	677	5.0	5.0	4.7	171	1510	1470	256	16
21	6.8	675	668	678	5.0	5.0	4.7	27	1430	1490	274	16
22	6.8	654	686	675	5.0	5.0	4.7	21	1400	1480	292	16
23	199	661	680	641	5.0	5.0	4.7	18	1400	1460	230	16
24	721	694	667	663	5.0	5.0	4.7	18	1390	1480	172	16
25	901	686	718	649	5.0	5.0	107	20	1420	1410	62	16
26	1010	674	703	654	5.0	5.0	401	20	1410	1210	20	16
27	1020	702	669	656	5.0	5.0	513	20	1410	1090	20	8.0
28	1020	716	673	659	5.0	5.0	724	20	1420	1080	20	8.0
29	868	670	675	658	---	5.0	934	20	1380	972	20	8.0
30	685	702	640	646	---	5.0	1050	20	1420	904	30	8.0
31	691	---	646	385	---	5.0	---	20	---	893	28	---
TOTAL	10571.8	20692	21074	20430	176.0	155.0	3842.6	22680	31968	42759	20341	511.0
MEAN	341	690	680	659	6.29	5.00	128	732	1066	1379	656	17.0
MAX	1020	716	718	728	41	5.0	1050	1440	1540	1500	1280	28
MIN	6.8	654	640	385	5.0	5.0	4.7	18	20	893	20	8.0
AC-FT	20970	41040	41800	40520	349	307	7620	44990	63410	84810	40350	1010

CAL YR 1976 TOTAL 193793.0 MEAN 529 MAX 1270 MIN 5.4 AC-FT 384400
WTR YR 1977 TOTAL 195200.4 MEAN 535 MAX 1540 MIN 4.7 AC-FT 387200

10068500 BEAR RIVER AT PESCADERO, ID

LOCATION.--Lat 42°24'06", long 111°21'22", in SW¼SW¼SE¼ sec.6, T.12 S., R.44 E., Bear Lake County, Hydrologic Unit 16010202, on left bank at Pescadero, 400 ft (122 m) downstream from road bridge, 2 mi (3.2 km) downstream from Bennington Creek, and 6.5 mi (10.5 km) northwest of Montpelier.

DRAINAGE AREA.--3,705 mi² (9,596 km²).

PERIOD OF RECORD.--October 1921 to September 1954, June 1969 to current year. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft or 1,798 m (from topographic map).

REMARKS.--Records good except those for winter months, which are fair. Flow regulated by Bear Lake (see sta 10055000) and diversions above station for irrigation.

AVERAGE DISCHARGE.--41 years, 609 ft³/s (17.2 m³/s), 441,200 acre-ft/yr (544 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,840 ft³/s (109 m³/s) June 10, 1923; minimum daily, 23 ft³/s (0.65 m³/s) Mar. 14-17, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft³/s (46.4 m³/s) June 19 (gage height, 5.27 ft or 1.606 m); minimum, 32 ft³/s (0.91 m³/s) Sept. 27, 28, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	828	734	800	823	413	71	59	1100	67	1440	857	60
2	820	734	800	776	276	73	57	1120	66	1470	852	65
3	814	734	800	770	125	66	55	1120	63	1470	850	63
4	761	734	788	776	98	69	59	1270	60	1440	886	63
5	631	734	740	834	94	69	69	1380	57	1440	900	68
6	273	734	734	791	94	73	75	1460	53	1440	902	53
7	120	734	711	840	94	69	77	1500	154	1430	896	43
8	112	740	717	794	92	63	83	1510	500	1440	881	39
9	102	734	717	800	95	72	79	1500	1020	1450	884	37
10	100	740	711	800	97	82	69	1480	1160	1440	998	38
11	94	740	764	800	97	88	69	1490	1190	1440	1040	39
12	91	740	752	800	95	70	66	1500	1210	1440	1150	42
13	91	734	729	800	94	65	65	1480	1430	1440	1230	43
14	95	717	711	800	91	71	58	1460	1500	1440	1250	42
15	95	723	700	800	88	61	53	1300	1530	1440	1250	44
16	97	717	711	800	80	59	52	1240	1570	1450	1230	42
17	97	723	689	800	63	61	50	1090	1590	1450	1220	42
18	87	729	746	800	62	61	51	662	1610	1440	1240	40
19	90	734	800	800	60	66	57	513	1630	1450	656	40
20	84	729	800	800	61	60	55	376	1620	1450	301	39
21	87	729	800	800	67	62	51	164	1580	1470	261	37
22	91	734	800	800	63	60	44	87	1470	1470	285	41
23	101	729	800	800	65	65	41	75	1440	1460	267	41
24	477	723	800	800	68	64	38	68	1410	1470	195	37
25	876	746	800	950	71	70	36	73	1410	1460	165	33
26	1030	723	800	980	70	74	272	71	1400	1320	117	35
27	1060	752	800	1000	66	61	391	69	1390	1120	76	34
28	1080	800	800	1060	67	74	605	74	1390	1070	63	32
29	1080	800	800	1030	---	69	851	69	1390	1010	61	32
30	823	800	800	992	---	63	1040	66	1370	913	72	33
31	746	---	800	956	---	64	---	65	---	873	62	---
TOTAL	12933	22174	23720	26172	2806	2095	4627	25432	32330	42536	21097	1297
MEAN	417	739	765	844	100	67.6	154	820	1078	1372	681	43.2
MAX	1080	800	800	1060	413	88	1040	1510	1630	1470	1250	68
MIN	84	717	689	770	60	59	36	65	53	873	61	32
AC-FT	25650	43980	47050	51910	5570	4160	9180	50440	64130	84370	41850	2570

CAL YR 1976 TOTAL 265360 MEAN 725 MAX 1460 MIN 84 AC-FT 526300
WTR YR 1977 TOTAL 217219 MEAN 595 MAX 1630 MIN 32 AC-FT 430900

10072800 EIGHTMILE CREEK NEAR SODA SPRINGS, ID

LOCATION.--Lat 42°32'15", long 111°34'20", in SE¼ sec.20, T.10 S., R.42 E., Bear Lake County, Hydrologic Unit 16010202, on right bank just below Wilson Creek, 15 ft (5 m) downstream from road bridge, 0.3 mi (0.5 km) north of Eightmile ranger station, and 8.4 mi (13.5 km) south of Soda Springs.

DRAINAGE AREA.--22.6 mi² (58.5 km²).

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,170 ft or 1,881 m (from topographic map).

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 16 7 ft³/s (0.47 m³/s), 12,130 acre-ft/yr (15.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160 ft³/s (4.53 m³/s) June 18, 1971 (gage height, 2.57 ft or 0.783 m); minimum, 0.98 ft³/s (0.028 m³/s) Mar. 3-5, 10, 20, 21, 1969, Aug. 7-13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19 ft³/s (0.54 m³/s) May 27 (gage height, 1.72 ft or 0.524 m); minimum, 0.98 ft³/s (0.028 m³/s) Aug. 7-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.0	3.7	2.5	2.7	2.3	1.8	7.5	15	5.8	1.3	1.6
2	6.4	4.8	3.6	2.6	2.6	2.3	1.7	7.8	15	6.0	1.3	1.5
3	7.3	4.8	3.6	2.7	2.6	2.2	1.7	7.5	15	6.0	1.3	1.5
4	5.9	4.7	3.6	2.7	2.7	2.1	1.8	7.5	15	5.8	1.3	1.4
5	5.8	4.6	3.6	2.7	2.6	2.1	2.2	7.5	15	5.5	1.3	1.4
6	5.8	4.6	3.6	2.7	2.5	2.2	2.9	8.4	14	5.2	1.3	1.4
7	5.7	4.5	3.6	2.7	2.5	2.1	3.9	7.5	14	4.5	1.1	1.4
8	5.7	4.5	3.7	2.7	2.5	2.0	5.5	7.2	13	4.3	1.1	1.4
9	5.7	4.5	3.8	2.7	2.5	2.0	6.8	7.2	13	4.2	1.1	1.4
10	5.6	4.4	3.7	2.7	2.5	1.9	6.3	7.5	13	4.1	1.0	1.4
11	5.5	4.4	3.8	2.7	2.5	1.9	5.8	7.5	12	4.0	1.0	1.4
12	5.5	4.2	3.6	2.7	2.4	2.0	5.6	7.2	11	3.8	1.0	1.4
13	5.7	3.7	3.6	2.7	2.3	1.9	5.6	7.2	9.5	3.6	1.1	1.4
14	5.4	4.4	3.6	2.8	2.3	1.9	5.4	7.5	8.8	3.2	1.0	1.3
15	5.3	4.6	3.6	2.9	2.2	2.1	5.3	7.2	8.4	3.0	1.1	1.4
16	5.3	4.8	3.5	2.8	2.2	1.9	5.6	7.8	8.1	2.8	1.1	1.4
17	5.3	4.7	3.3	2.8	2.0	1.9	5.8	8.1	7.8	2.8	1.2	1.5
18	5.2	4.5	3.3	2.7	1.9	1.9	5.6	8.1	7.8	2.5	2.4	1.3
19	5.1	4.5	3.2	2.7	1.9	2.0	5.4	9.5	7.5	2.4	1.5	1.2
20	5.2	4.5	2.9	2.6	2.1	2.0	5.2	9.5	7.5	2.5	1.3	1.2
21	5.2	4.2	3.0	2.7	1.9	2.0	5.2	9.5	7.8	3.1	1.3	1.3
22	5.1	4.5	2.9	2.7	1.9	2.2	5.0	9.8	8.4	2.4	2.0	1.7
23	5.0	4.2	2.8	2.5	1.9	2.4	5.1	9.5	8.1	2.4	1.8	1.7
24	5.0	4.4	2.8	2.4	1.9	2.3	5.5	11	7.8	2.7	1.7	1.6
25	5.3	4.5	3.0	2.7	2.0	1.9	5.8	15	7.5	2.6	2.5	1.5
26	5.2	3.5	3.0	2.8	2.0	1.6	6.0	15	7.2	1.8	5.8	1.5
27	5.0	2.7	3.0	2.8	2.1	1.7	6.3	17	6.8	1.7	3.2	1.4
28	5.1	3.2	3.0	2.8	2.3	1.6	6.6	17	6.6	1.6	2.6	1.3
29	5.1	3.5	2.9	2.8	---	1.5	6.8	17	6.3	1.5	2.0	1.3
30	5.0	3.7	2.8	2.7	---	1.6	6.8	16	6.0	1.5	1.9	1.9
31	5.0	---	2.7	2.7	---	1.8	---	15	---	1.4	1.7	---
TOTAL	169.3	129.1	102.8	83.7	63.5	61.3	149.0	307.0	302.9	104.7	51.3	43.1
MEAN	5.46	4.30	3.32	2.70	2.27	1.98	4.97	9.90	10.1	3.38	1.65	1.44
MAX	7.3	5.0	3.8	2.9	2.7	2.4	6.8	17	15	6.0	5.8	1.9
MIN	5.0	2.7	2.7	2.4	1.9	1.5	1.7	7.2	6.0	1.4	1.0	1.2
AC-FT	336	256	204	166	126	122	296	609	601	208	102	85

CAL YR 1976 TOTAL 6902.7 MEAN 18.9 MAX 110 MIN 2.7 AC-FT 13690
WTR YR 1977 TOTAL 1567.7 MEAN 4.30 MAX 17 MIN 1.0 AC-FT 3110

10075000 BEAR RIVER AT SODA SPRINGS, ID

LOCATION.--Lat 42°36'50", long 111°34'58", in NW¼SW¼NW¼ sec.29, T.9 S., R.42 E., Caribou County, Hydrologic Unit 16010202, on left bank 800 ft (244 m) upstream from Bailey Creek road bridge and 2 mi (3 km) south of Soda Springs.

DRAINAGE AREA.--3,972 mi² (10,287 km²).

PERIOD OF RECORD.--May to September 1896, May, June 1898, and October 1953 to current year in reports of Geological Survey. Irrigation season only during 1944-49, 1951-53 in reports of Bear River Hydrometric Data (Geological Survey open-file report).

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,760 ft or 1,756 m (from topographic map). May 25 to Oct. 2, 1896, May 22 to July 1, 1898, nonrecording gage at different datum. During irrigation season 1944-49, 1950-53, water-stage recorder at site 800 ft (244 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by upstream reservoirs, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--24 years, 654 ft³/s (18.5 m³/s), 474,100 acre-ft/yr (585 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,380 ft³/s (181 m³/s) June 9, 15, 1896 (gage height, 8.40 ft or 2.560 m, datum then in use); minimum daily, 60 ft³/s (1.70 m³/s) Dec. 6, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,570 ft³/s (44.5 m³/s) June 20 (gage height, 4.88 ft or 1.487 m); minimum, 77 ft³/s (2.18 m³/s) Feb. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	898	833	828	793	629	139	142	1060	186	1400	903	134
2	888	831	827	792	335	139	138	1100	179	1450	900	129
3	897	830	826	791	243	139	140	1080	172	1470	897	131
4	861	830	824	790	203	139	137	1160	161	1460	923	129
5	797	831	823	630	179	139	171	1270	153	1430	955	128
6	602	832	822	790	149	139	191	1390	147	1430	966	127
7	303	832	821	790	143	139	200	1430	145	1430	964	109
8	239	833	820	790	158	139	207	1430	398	1430	947	96
9	225	834	819	790	162	140	212	1400	817	1430	933	94
10	217	835	818	790	173	140	194	1390	1060	1430	1000	94
11	212	836	817	790	139	140	182	1390	1120	1440	1060	94
12	208	836	816	790	159	140	179	1390	1140	1460	1140	94
13	206	832	814	790	154	140	175	1370	1280	1460	1210	94
14	207	825	813	790	157	140	174	1350	1410	1450	1240	93
15	208	826	812	830	156	140	159	1280	1450	1440	1240	94
16	209	831	811	822	139	140	160	1210	1490	1450	1220	97
17	210	835	810	814	136	140	160	1160	1520	1450	1210	97
18	208	837	809	806	140	140	155	903	1530	1440	1220	97
19	202	834	808	798	146	140	151	709	1550	1440	894	98
20	201	831	807	790	133	140	148	600	1570	1440	519	99
21	198	828	806	790	122	141	145	443	1540	1460	343	99
22	202	826	804	790	120	170	143	290	1470	1460	343	100
23	209	825	803	790	111	193	137	227	1420	1460	366	100
24	278	824	802	730	111	181	134	213	1390	1450	321	97
25	795	835	801	870	125	148	132	225	1380	1460	279	92
26	1010	825	800	910	139	157	160	228	1380	1420	300	88
27	1090	808	799	910	139	167	449	228	1370	1230	213	85
28	1100	532	798	910	139	135	572	244	1350	1110	162	82
29	1120	830	797	910	---	134	780	231	1370	1060	144	80
30	1000	829	796	890	---	138	951	215	1360	980	137	85
31	850	---	794	830	---	146	---	200	---	923	145	---
TOTAL	15850	24606	25145	25096	4839	4502	6978	26816	31508	42843	23094	3036
MEAN	511	820	811	810	173	145	233	865	1050	1382	745	101
MAX	1120	837	828	910	629	193	951	1430	1570	1470	1240	134
MIN	198	532	794	630	111	134	132	200	145	923	137	80
AC-FT	31440	48810	49880	49780	9600	8930	13840	53190	62500	84980	45810	6020

CAL YR 1976 TOTAL 312214 MEAN 853 MAX 1710 MIN 198 AC-FT 619300
WTR YR 1977 TOTAL 234313 MEAN 642 MAX 1570 MIN 80 AC-FT 464800

10076400 SODA CREEK AT FIVEMILE MEADOWS, NEAR SODA SPRINGS, ID

LOCATION.--Lat 42°43'45", long 111°36'55", in SE¼NW¼ sec.13, T.8 S., R.41 E., Caribou County, Hydrologic Unit 16010202, on right bank 100 ft (30 m) southeast of Lau ranchhouse, 150 ft (46 m) downstream from Schmidt ditch, and 5 mi (8.0 km) north of Soda Springs.

DRAINAGE AREA.--51.7 mi^2 (133.9 km^2).

PERIOD OF RECORD.--October 1964 to current year. April 1923 to October 1926 at this site published as "at Lau Ranch;" records not equivalent owing to diversion in Schmidt ditch during irrigation season.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,980 ft or 1,822 m (from topographic map). April 1923 to October 1926 at different datum and Oct. 1, 1964, to Aug. 26, 1965, at site 400 ft (122 m) upstream at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years, 18.0 ft^3/s (0.51 m^3/s), 13,070 acre-ft/yr (16.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121 ft^3/s (3.43 m^3/s) Apr. 14. 1976; maximum gage height, 4.01 ft (1.222 m) Apr. 2, 1965, site and datum then in use; no flow Dec. 24, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft^3/s (0.71 m^3/s) Oct. 3 (gage height, 1.37 ft or 0.418 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	19	16	15	15	13	12	12	12	3.5	2.0	2.7
2	22	18	16	15	15	13	12	12	12	3.5	2.0	2.7
3	24	18	16	15	15	13	12	12	10	3.6	2.0	2.9
4	22	18	16	15	15	13	12	13	8.9	3.7	2.1	2.7
5	21	18	16	15	15	13	12	13	8.3	3.6	2.3	2.8
6	21	18	16	15	15	13	12	14	7.8	3.6	2.1	3.1
7	21	18	16	15	15	13	12	14	7.4	3.4	1.9	2.9
8	20	18	16	15	15	13	12	14	7.0	3.3	1.8	3.2
9	20	18	16	15	15	13	12	14	7.2	3.2	1.8	3.2
10	20	18	16	15	15	13	12	14	6.8	3.1	1.8	3.3
11	20	18	16	15	15	12	12	14	6.6	2.9	1.8	3.3
12	20	18	16	15	15	12	12	14	5.8	2.9	1.6	3.4
13	20	18	16	15	15	12	12	14	5.4	2.8	1.7	3.3
14	20	18	16	15	15	12	12	14	5.2	2.5	1.7	3.2
15	20	18	16	15	15	12	12	14	5.0	2.5	1.7	3.7
16	20	18	15	15	15	12	12	15	5.0	2.3	1.7	3.8
17	20	18	16	15	15	12	12	15	4.8	2.1	1.7	3.9
18	20	18	15	15	15	12	12	16	4.6	2.1	2.0	3.8
19	20	18	15	15	15	12	12	17	4.6	2.1	1.9	3.8
20	20	18	15	15	15	12	12	17	4.6	2.1	1.9	3.8
21	20	18	15	15	14	12	12	16	4.6	2.3	1.8	3.8
22	20	18	15	15	14	12	12	16	4.4	2.3	2.1	4.0
23	20	18	15	15	14	13	12	16	4.2	2.3	2.3	3.9
24	20	18	15	15	14	13	12	16	4.0	2.4	2.3	4.0
25	21	18	15	15	14	13	12	16	3.9	2.5	2.6	4.0
26	21	17	15	15	14	12	12	16	3.9	2.4	2.8	4.4
27	20	17	15	15	14	12	12	16	3.8	2.3	2.8	4.4
28	20	17	15	15	14	12	12	15	3.6	2.3	2.8	4.4
29	20	16	15	15	---	12	12	14	3.5	2.1	2.8	4.4
30	20	16	15	15	---	12	12	13	3.6	2.1	3.0	5.2
31	19	---	15	15	---	12	---	12	---	2.0	2.8	---
TOTAL	633	534	481	465	412	385	360	448	178.5	83.8	65.6	108.0
MEAN	20.4	17.8	15.5	15.0	14.7	12.4	12.0	14.5	5.95	2.70	2.12	3.60
MAX	24	19	16	15	15	13	12	17	12	3.7	3.0	5.2
MIN	19	16	15	15	14	12	12	12	3.5	2.0	1.6	2.7
AC-FT	1260	1060	954	922	817	764	714	889	354	166	130	214

CAL YR 1976 TOTAL 9207.0 MEAN 25.2 MAX 110 MIN 10 AC-FT 18260
WTR YR 1977 TOTAL 4153.9 MEAN 11.4 MAX 24 MIN 1.6 AC-FT 8240

10079500 BEAR RIVER AT ALEXANDER, ID

LOCATION.--Lat 42°38'42", long 111°41'51", in NE¼SW¼NW¼ sec.17, T.9 S., R.41 E., Caribou County, Hydrologic Unit Unit 16010202, on right bank 600 ft (183 m) downstream from Soda hydroelectric plant of Utah Power & Light Co., 0.5 mi (0.8 km) southeast of Alexander, and 5 mi (8 km) downstream from Soda Creek.

DRAINAGE AREA.--4,099 mi² (10,616 km²).

PERIOD OF RECORD.--March 1911 to current year. Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,650 ft or 1,722 m (from topographic map).

REMARKS.--Records good. Natural flow of stream affected by upstream reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--66 years, 778 ft³/s (22.0 m³/s), 563,700 acre-ft/yr (695 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,740 ft³/s (139 m³/s) Mar. 31, 1911; maximum gage height, 15.95 ft (4.862 m) Dec. 11, 1919 (backwater from ice); minimum discharge, 28 ft³/s (0.79 m³/s) at times when reservoir gates were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft³/s (46.4 m³/s) May 5 (gage height, 2.62 ft or 0.799 m); minimum, 39 ft³/s (1.10 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	921	992	824	864	849	287	481	984	333	1510	894	239
2	922	976	936	968	510	289	270	1170	372	1500	895	216
3	969	951	982	960	376	290	371	1190	387	1520	950	231
4	1010	802	982	973	364	316	482	1330	398	1510	838	230
5	1060	808	982	941	377	314	326	1600	400	1510	933	226
6	1040	848	999	885	375	286	482	1610	449	1480	940	177
7	1050	839	998	896	378	294	371	1550	640	1460	979	199
8	1040	834	992	890	333	309	423	1550	805	1490	1110	202
9	1040	864	1000	889	282	315	445	1520	765	1500	1160	201
10	1050	854	999	828	248	304	424	1540	1130	1500	1170	197
11	1040	885	1000	892	263	286	339	1520	1320	1510	1290	193
12	1040	1000	999	893	263	300	319	1520	1300	1540	1260	188
13	965	1010	989	892	263	308	347	1290	1360	1550	1280	184
14	994	1010	907	888	288	302	319	797	1500	1550	1270	183
15	957	1020	771	894	288	302	293	603	1490	1550	1280	187
16	467	1010	772	891	288	317	326	897	1480	1550	1280	183
17	493	1010	825	894	288	303	266	1080	1490	1550	1280	181
18	387	1020	889	955	288	300	337	1040	1450	1560	1060	179
19	294	1020	882	946	288	307	262	711	1400	1560	474	177
20	288	1010	884	947	276	240	277	626	1400	1510	614	176
21	161	1020	890	949	301	216	207	626	1410	1460	340	175
22	141	1000	893	947	288	381	201	316	1390	1400	316	173
23	160	1020	840	943	313	341	156	303	1400	1390	310	171
24	140	997	780	945	288	356	443	302	1420	1190	297	170
25	95	728	760	939	243	413	574	308	1450	806	290	165
26	148	945	740	938	280	422	575	307	1470	1050	381	163
27	342	971	824	937	282	383	592	305	1500	1030	305	162
28	249	641	825	933	270	432	657	304	1510	980	252	161
29	440	596	879	740	---	319	786	316	1530	912	247	160
30	983	579	886	713	---	423	838	318	1560	911	248	101
31	976	---	829	729	---	540	---	324	---	904	247	---
TOTAL	20862	27260	27758	27899	9150	10195	12189	27857	34509	42443	24210	5550
MEAN	673	909	895	900	327	329	406	899	1150	1369	781	185
MAX	1060	1020	1000	973	849	540	838	1610	1560	1560	1290	239
MIN	95	579	740	713	243	216	156	302	333	806	247	101
AC-FT	41380	54070	55060	55340	18150	20220	24180	55250	68450	84190	48020	11010

CAL YR 1976 TOTAL 346048 MEAN 945 MAX 2030 MIN 95 AC-FT 686400
WTR YR 1977 TOTAL 269882 MEAN 739 MAX 1610 MIN 95 AC-FT 535300

10084500 COTTONWOOD CREEK NEAR CLEVELAND, ID

LOCATION.--Lat 42°19'57", long 111°46'27", in SW¼ sec.34, T.12 S., R.40 E., Franklin County, Hydrologic Unit 16010202, on right bank 500 ft (152 m) upstream from Cleveland irrigation canal, 2.5 mi (4.0 km) west of Cleveland, and 4 mi (6 km) downstream from proposed Cottonwood Dam.

DRAINAGE AREA.--61.7 mi^2 (159.8 km^2).

PERIOD OF RECORD.--November 1938 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,150 ft or 1,570 m (from topographic map). Prior to Dec. 29, 1944, nonrecording gage at same site and datum.

REMARKS.--Records good except those for periods of ice effect, which are fair. A few small diversions for irrigation of meadowland in Cottonwood Valley above station. Treasureton Canal diverts from Cottonwood Creek 10.1 mi (16.3 km) above station in SE¼ sec.8, T.12 S., R.39 E., for irrigation in Battle Creek basin in vicinity of Treasureton.

AVERAGE DISCHARGE.--38 years, 31.1 ft^3/s (0.88 m^3/s), 22,530 acre-ft/yr (27.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft^3/s (22.3 m^3/s) May 16, 1975 (gage height, 4.01 ft or 1.222 m); no flow Feb. 19, 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft^3/s (2.21 m^3/s) Apr. 8 (gage height, 2.19 ft or 0.668 m), no peak above base of 200 ft^3/s (5.66 m^3/s); no flow Feb. 19, 21, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	12	6.7	8.0	8.4	9.9	12	4.7	9.6	4.1	1.9	1.7
2	11	12	6.9	8.0	8.0	9.9	11	4.8	8.6	4.1	1.9	1.8
3	18	12	7.6	8.1	8.0	9.5	11	4.9	8.0	4.0	1.9	1.8
4	14	12	8.1	8.3	8.4	9.5	14	5.6	7.6	4.0	1.9	1.8
5	13	12	9.1	8.0	8.4	9.9	23	6.2	7.0	3.8	1.8	1.8
6	12	12	9.9	8.0	8.0	9.9	36	8.2	6.5	3.6	1.8	1.8
7	12	12	11	8.0	8.0	10	45	9.1	6.3	3.5	1.7	1.8
8	12	12	11	8.0	8.0	9.9	50	8.0	6.3	3.5	1.7	1.9
9	12	12	11	8.0	8.0	9.5	45	7.5	7.3	3.5	1.7	2.0
10	11	12	11	8.0	8.4	9.1	37	7.6	7.0	3.4	1.7	2.0
11	11	12	10	8.0	3.8	9.1	31	8.0	7.3	3.3	1.7	2.0
12	11	12	9.9	8.0	2.7	9.5	28	7.0	7.0	3.2	1.7	2.1
13	11	9.5	9.9	8.0	1.4	10	13	6.5	6.3	3.1	1.7	2.1
14	11	11	10	8.0	.88	9.5	9.6	6.4	5.9	3.1	1.6	2.1
15	11	15	10	8.0	.50	10	8.2	6.7	5.5	2.9	1.6	2.1
16	11	14	10	8.0	.32	9.9	8.1	8.7	5.2	2.9	1.6	2.1
17	11	14	9.9	8.0	.20	9.3	7.9	9.8	5.1	2.8	1.6	2.2
18	11	13	9.4	8.1	.08	9.2	7.4	11	5.0	2.8	1.8	2.2
19	11	13	9.0	8.0	0	9.2	6.7	15	4.9	2.7	1.7	2.2
20	11	12	8.0	7.9	0	9.4	6.4	19	5.2	2.7	1.6	2.2
21	12	12	8.0	8.1	1.6	9.5	6.1	16	5.3	2.6	1.6	2.1
22	12	13	7.7	8.1	9.5	10	5.8	13	5.1	2.5	1.6	2.3
23	12	12	7.8	8.0	9.1	13	5.3	12	4.9	2.5	1.6	2.1
24	11	12	8.0	7.8	9.5	16	5.2	11	4.8	2.6	1.6	2.0
25	12	13	8.0	8.3	10	13	5.1	17	4.7	2.4	1.6	2.0
26	13	8.8	8.8	8.2	9.9	12	5.0	15	4.6	2.3	2.0	2.0
27	12	12	9.2	8.0	10	13	4.8	16	4.4	2.3	1.7	2.0
28	13	5.4	9.1	8.0	10	12	4.8	22	4.4	2.2	1.6	2.0
29	13	5.3	9.0	8.0	---	11	4.7	15	4.2	2.1	1.6	2.0
30	13	5.9	8.0	8.0	---	11	4.6	13	4.2	2.1	1.7	2.2
31	12	---	8.0	8.0	---	11	---	11	---	2.0	1.7	---
TOTAL	369.5	344.9	280.0	248.9	161.08	323.7	461.7	325.7	178.2	92.6	52.9	60.4
MEAN	11.9	11.5	9.03	8.03	5.75	10.4	15.4	10.5	5.94	2.99	1.71	2.01
MAX	18	15	11	8.3	10	16	50	22	9.6	4.1	2.0	2.3
MIN	9.5	5.3	6.7	7.8	0	9.1	4.6	4.7	4.2	2.0	1.6	1.7
AC-FT	733	684	555	494	320	642	916	646	353	184	105	120

CAL YR 1976 TOTAL 14457.00 MEAN 39.5 MAX 338 MIN 5.1 AC-FT 28680
WTR YR 1977 TOTAL 2899.58 MEAN 7.94 MAX 50 MIN 0 AC-FT 5750

10086500 BEAR RIVER BELOW UTAH POWER & LIGHT CO.'S TAILRACE, AT ONEIDA, ID

LOCATION.--Lat 42°16'00", long 111°45'04", in NE¼SE¼NW¼ sec.26, T.13 S., R.40 E., Franklin County, Hydrologic Unit 16010202, on right bank 200 ft (61 m) downstream from tailrace of Oneida plant and 6 mi (10 km) south of Cleveland.

DRAINAGE AREA.--4,456 mi² (11,541 km²).

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only October 1921 to September 1945, published in WSP 1314.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft or 1,460 m (from topographic map).

REMARKS.--Records good. Natural flow of stream affected by upstream reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--56 years, 834 ft³/s (23.6 m³/s), 604,500 acre-ft/yr (745 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,480 ft³/s (155 m³/s) May 8, 1922; minimum, 7.3 ft³/s (0.21 m³/s) Mar. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,930 ft³/s (83.0 m³/s) Mar. 6 (gage height, 6.48 ft or 1.975 m); minimum, 7.3 ft³/s (0.21 m³/s) Mar. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	627	242	576	919	1050	304	848	401	91	958	820	276
2	1210	752	1150	1030	948	681	237	1080	247	1030	558	530
3	930	851	1240	1480	580	213	427	1470	466	1010	599	319
4	1010	1180	1290	795	446	368	203	1310	173	1150	724	189
5	1070	813	1190	1310	404	433	809	1350	358	1120	708	296
6	1450	971	1040	944	486	559	283	1400	329	1060	743	191
7	1050	1060	1660	1100	385	430	422	1160	723	1020	686	322
8	1630	971	1190	1120	891	415	523	1330	1010	1190	709	309
9	2580	1210	994	991	132	542	513	1140	1050	1090	740	287
10	2280	1170	1150	811	590	571	474	1250	996	1030	801	190
11	599	1000	1430	912	263	547	655	828	1720	1220	617	198
12	89	1230	811	902	745	299	261	638	738	887	1190	200
13	903	1020	1470	1170	114	616	180	663	1150	1120	965	361
14	1100	1180	1020	1230	496	849	674	1030	1330	1040	1160	494
15	1360	970	1150	1430	413	1120	43	755	1220	1480	1050	706
16	1880	1710	1140	1140	390	1190	614	316	1270	1450	1200	1620
17	1690	1250	706	1030	550	865	45	978	829	1160	851	1540
18	989	505	827	1240	765	375	308	1050	1190	1110	509	1180
19	442	1510	1050	1050	689	855	262	811	1070	1010	296	753
20	437	1080	1140	1380	551	925	219	498	1060	985	418	412
21	44	1130	1120	1060	229	503	91	851	1050	1130	346	332
22	115	1740	1210	1120	442	23	144	315	1140	1090	211	298
23	31	1120	787	1220	408	7.7	143	161	1130	893	322	306
24	1410	856	1110	1230	537	8.1	131	193	1130	771	213	319
25	127	922	1180	1120	414	92	194	525	1090	830	240	297
26	102	1140	704	1040	818	823	661	244	1030	427	554	303
27	148	1230	830	1020	423	272	260	457	901	548	414	294
28	129	721	942	1260	589	188	939	65	1020	804	400	315
29	31	885	1170	1250	---	803	882	232	1490	559	223	250
30	662	1030	991	834	---	75	1190	518	1170	677	293	190
31	300	---	1230	919	---	462	---	368	---	596	368	---
TOTAL	26425	31449	33498	34137	14748	15413.8	12635	23387	28171	30445	18928	13277
MEAN	852	1048	1081	1101	527	497	421	754	939	982	611	443
MAX	2580	1740	1660	1480	1050	1190	1190	1470	1720	1480	1200	1620
MIN	31	242	576	795	114	7.7	43	65	91	427	211	189
AC-FT	52410	62380	66440	67710	29250	30570	25060	46390	55880	60390	37540	26330

CAL YR 1976 TOTAL 389358.0 MEAN 1064 MAX 2870 MIN 31 AC-FT 772300
WTR YR 1977 TOTAL 282513.8 MEAN 774 MAX 2580 MIN 7.7 AC-FT 560400

10090500 BEAR RIVER NEAR PRESTON, ID

LOCATION.--Lat 42°10'05", long 111°50'59", in NW¼ sec.36, T.14 S., R.39 E., Franklin County, Hydrologic Unit 16010202, on left bank 600 ft (183 m) downstream from headgates of West Cache Canal, 5 mi (8 km) downstream from Mink Creek, 5 mi (8 km) north of Preston, and 5.5 mi (8 km) upstream from Battle Creek.

DRAINAGE AREA.--4,545 mi² (11,772 km²).

PERIOD OF RECORD.--October 1889 to December 1916, January to September 1917 (gage heights only), October 1943 to current year. Prior to 1903, published as "at Battlecreek." Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WSP 205: 1905-7. WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,524.8 ft (1,379.16 m) above mean sea level, unadjusted. October 1889 to September 1917 nonrecording gages at several sites within 5 mi (8 km) downstream at different datums.

REMARKS.--Records good. Station is below all irrigation diversions from Bear River in Idaho except Cub River pumps in SE¼ sec.20, T.16 S., R.39 E. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--34 years (1944-77), 876 ft³/s (24.9 m³/s), 637,600 acre-ft/yr (786 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--(since 1943): Maximum discharge, 4,420 ft³/s (125 m³/s) Apr. 17, 1950 (gage height, 5.61 ft or 1.710 m); minimum, 0.6 ft³/s (0.02 m³/s) June 14, 1949.

1889-1917: Maximum flood occurred June 9, 10, 1907, about 8,500 ft³/s (241 m³/s), estimated on basis of records for downstream station near Collinston (station 10118000), site and datum then in use. Maximum gage height observed, 9.04 ft (2.755 m) Jan. 17, 18, 1917 (backwater from ice), site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,680 ft³/s (75.9 m³/s) Dec. 25 (gage height, 4.36 ft or 1.329 m); minimum, 11 ft³/s (0.31 m³/s) Apr. 22, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	810	347	658	925	1100	292	643	292	27	819	642	356
2	1130	638	1100	1280	1000	784	564	751	76	747	498	335
3	705	769	891	1340	700	201	538	1260	479	900	688	514
4	1090	1090	1290	726	500	212	233	861	263	887	529	163
5	1200	802	1310	1260	500	528	833	1080	256	956	789	201
6	1290	1070	926	844	550	367	294	1140	496	871	540	141
7	886	960	1330	1100	500	563	493	1010	1090	820	539	166
8	1480	1050	1210	1200	900	212	551	984	1060	1030	660	261
9	2480	1080	847	1000	300	633	587	984	1230	881	747	207
10	2280	1270	1090	900	600	503	481	1000	1270	981	639	74
11	872	1080	1150	1000	400	555	676	607	1220	916	500	79
12	60	733	908	1000	800	255	320	565	675	737	1190	79
13	824	1240	1490	1200	280	511	181	467	861	865	872	250
14	1130	1080	1030	1300	473	559	521	719	1050	895	1120	391
15	1280	1060	971	1500	404	1110	231	536	1090	1210	894	421
16	1850	1370	1090	1200	473	1090	426	228	1020	1230	1280	1610
17	1750	1330	673	1100	473	680	182	678	1130	1060	760	1560
18	1130	402	913	1300	776	552	363	1020	892	1030	635	1280
19	376	1350	938	1200	507	635	186	606	955	826	230	834
20	640	1180	1210	1400	737	1050	279	505	818	819	480	337
21	190	965	972	1200	359	461	131	816	916	1010	351	303
22	155	1640	1080	1210	374	256	11	378	958	1060	311	243
23	67	981	754	1180	245	34	11	114	908	671	246	242
24	1150	953	1140	1200	507	32	11	144	965	568	284	250
25	348	786	1170	1120	508	80	43	374	879	973	171	230
26	138	1070	830	1050	651	683	208	287	834	512	553	233
27	191	1120	696	1200	448	410	343	518	771	595	493	223
28	82	848	1200	1300	327	320	810	58	872	681	456	243
29	132	849	810	1300	---	758	659	204	1310	588	184	211
30	321	817	1070	900	---	185	864	357	1000	605	328	171
31	587	---	1220	1000	---	413	---	377	---	536	282	---
TOTAL	26624	29930	31967	35435	15392	14924	11673	18920	25371	26279	17891	11608
MEAN	859	998	1031	1143	550	481	389	610	846	848	577	387
MAX	2480	1640	1490	1500	1100	1110	864	1260	1310	1230	1280	1610
MIN	60	347	658	726	245	32	11	58	27	512	171	74
AC-FT	52810	59370	63410	70290	30530	29600	23150	37530	50320	52120	35490	23020

CAL YR 1976 TOTAL 429021 MEAN 1172 MAX 3370 MIN 58 AC-FT 851000
WTR YR 1977 TOTAL 266014 MEAN 729 MAX 2480 MIN 11 AC-FT 527600

10091200 DEEP CREEK NEAR CLIFTON, ID

LOCATION.--Lat 42°11'55", long 111°59'09", in SE¼SW¼ sec.14, T.14 S., R.38 E., Franklin County, Hydrologic Unit 16010202, on right bank 40 ft (12 m) above county road culvert and 1.3 mi (2.1 km) northeast of Clifton.

DRAINAGE AREA.--107 mi² (277 km²).

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR ID 1974: Drainage area.

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 4,705 ft or 1,434 m (from topographic map).

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--11 years, 12.1 ft³/s (0.34 m³/s) 8,770 acre-ft/yr (10.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 152 ft³/s (4.30 m³/s) Mar. 31, 1969 (gage height, 6.80 ft or 2.073 m, from high-water mark on outside of well); minimum observer, 0.30 ft³/s (0.009 m³/s) July 27, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft³/s (0.37 m³/s) Mar. 27 (gage height, 2.54 ft or 0.774 m); minimum observed, 0.30 ft³/s (0.009 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.0	2.0	1.0	1.0	3.0	12	4.4	4.5	2.0	.41	.37
2	1.3	1.8	2.0	1.0	1.0	3.0	12	4.4	4.1	1.8	.41	.37
3	1.4	1.8	1.9	1.0	1.0	3.0	12	4.3	3.7	2.1	.41	.41
4	1.4	1.9	1.9	1.0	1.0	3.0	12	4.9	3.2	1.5	.34	.68
5	1.3	2.1	2.1	1.0	1.0	3.0	12	4.5	3.2	1.2	.37	2.0
6	1.3	2.1	1.9	1.0	1.0	3.0	12	5.3	3.2	1.2	.34	2.0
7	1.5	2.1	2.0	1.0	1.0	3.0	12	5.8	3.0	1.0	.34	2.3
8	1.6	2.1	1.9	1.0	1.0	3.0	11	4.4	3.0	1.1	.34	.94
9	1.6	2.0	1.8	1.0	1.0	3.0	10	5.3	3.7	1.2	.34	.50
10	1.7	1.9	1.7	1.0	1.0	3.0	10	4.3	3.3	.99	.34	.44
11	1.7	2.1	1.5	1.0	1.5	4.0	10	4.1	3.0	.68	.34	.44
12	1.7	2.0	1.4	1.0	1.5	4.0	9.3	3.9	2.8	.53	.31	.41
13	1.6	2.0	1.4	1.0	1.5	5.0	8.6	3.7	3.0	.53	.31	.41
14	1.6	2.0	1.3	1.0	1.5	5.0	8.3	3.5	2.4	.60	.44	.41
15	1.7	2.0	1.3	1.0	1.5	5.0	7.7	3.5	2.4	.63	.50	.44
16	1.9	2.0	1.2	1.0	2.0	5.0	7.7	3.2	2.2	.44	.57	.41
17	1.8	2.2	1.2	1.0	2.0	5.0	7.0	4.4	2.4	.53	.37	.41
18	1.8	2.0	1.1	1.0	2.0	6.0	6.8	5.2	1.6	.50	.53	.37
19	1.7	2.0	1.1	1.0	2.0	7.2	6.4	5.3	1.5	.55	.41	.37
20	1.5	2.1	1.0	1.0	2.0	8.8	6.2	6.5	1.7	.34	.41	.37
21	1.6	2.0	1.0	1.0	2.5	9.0	5.8	5.3	2.3	.34	.41	.37
22	1.5	2.0	1.0	1.0	2.5	9.1	5.3	5.0	2.4	.34	.37	.41
23	1.7	2.0	1.0	1.0	2.5	10	5.2	4.7	2.0	.47	.37	.41
24	1.8	2.0	1.0	1.0	2.5	12	4.8	4.4	2.4	.41	.41	.37
25	1.9	2.0	1.0	1.0	2.3	12	4.8	4.9	2.3	.37	.53	.41
26	1.8	2.0	1.0	1.0	2.5	13	4.9	5.0	2.6	.41	.86	.41
27	1.7	2.0	1.0	1.0	2.5	13	5.2	5.9	2.5	.34	.53	.41
28	1.8	2.0	1.0	1.0	2.5	13	5.0	6.6	3.1	.34	.50	.37
29	1.9	2.0	1.0	1.0	---	12	4.7	5.8	2.8	.31	.44	.37
30	2.0	2.0	1.0	1.0	---	12	4.3	5.5	2.0	.47	.37	.44
31	2.4	---	1.0	1.0	---	12	---	5.2	---	.41	.37	---
TOTAL	51.5	60.2	42.7	31.0	47.3	212.1	243.0	149.2	82.3	23.63	12.99	18.02
MEAN	1.66	2.01	1.38	1.00	1.69	6.84	8.10	4.81	2.74	.76	.42	.60
MAX	2.4	2.2	2.1	1.0	2.5	13	12	6.6	4.5	2.1	.86	2.3
MIN	1.3	1.8	1.0	1.0	1.0	3.0	4.3	3.2	1.5	.31	.31	.37
AC-FT	102	119	85	61	94	421	482	296	163	47	26	36

CAL YR 1976 TOTAL 5893.73 MEAN 16.1 MAX 137 MIN .90 AC-FT 11690
WTR YR 1977 TOTAL 973.94 MEAN 2.67 MAX 13 MIN .31 AC-FT 1930

10092700 BEAR RIVER AT IDAHO-UTAH STATE LINE

LOCATION.--Lat 42°00'47", long 111°55'14", in NW¼NE¼ sec.29, T.16 S., R.39 E., Franklin County, Idaho, Hydrologic Unit 16010202, on left bank 1,050 ft (320 m) downstream from inlet canal to Cub River pumps, 1.1 mi (1.8 km) downstream from Weston Creek, 1.8 mi (2.9 km) upstream from State line, and 3.5 mi (5.6 km) southeast of Weston.

DRAINAGE AREA.--4,881 mi² (12,642 km²).

PERIOD OF RECORD.--October 1970 to current year.

REVISED RECORDS.--WDR ID 1974: Drainage area/

GAGE.--Water-stage recorder. Altitude of gage is 4,420 ft or 1,347 m (from topographic map).

REMARKS.--Records fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--7 years, 1,349 ft³/s (38.2 m³/s) 977,400 acre-ft/yr (1.21 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,190 ft³/s (119 m³/s) June 12, 1971 (gage height, 8.25 ft or 2.515 m); minimum daily, 73 ft³/s (2.07 m³/s) Nov. 20, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,680 ft³/s (75.9 m³/s) Oct. 9 (gage height, 5.74 ft or 1.750 m); minimum daily, 100 ft³/s (2.83 m³/s) Mar. 23, 24, 25, Apr. 22, 23, 24, 25, Sept. 10, 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	474	800	1000	1100	500	700	708	200	878	473	374
2	772	418	1100	1300	1100	800	600	494	200	728	641	326
3	997	803	1000	1400	700	300	600	1090	500	879	568	543
4	1170	1280	1300	900	600	300	300	955	400	753	493	260
5	1040	1100	1400	1300	500	600	824	1090	300	887	666	200
6	1360	1010	1100	1000	600	400	744	1110	400	870	639	150
7	1120	1080	1400	1200	500	600	523	1120	302	920	521	150
8	1220	1170	1300	1200	1000	300	690	893	434	737	752	240
9	2560	1170	1000	1100	400	700	657	1150	663	978	524	250
10	2650	1470	1100	900	700	600	516	1070	796	833	573	100
11	1700	1150	1200	1000	400	600	708	1030	846	726	685	100
12	230	1070	1100	1100	800	300	625	783	1160	910	651	100
13	510	1150	1500	1200	300	600	324	455	604	782	922	250
14	1150	1410	1100	1300	600	600	428	647	955	881	1020	328
15	1170	1420	1000	1500	500	1200	597	843	1020	950	826	476
16	1730	918	1100	1400	500	1100	344	302	974	1250	1110	1040
17	1890	1830	900	1100	700	800	543	503	1090	1180	936	1660
18	1490	1020	1000	1300	900	600	385	1070	854	867	829	1590
19	670	1040	1100	1200	800	700	406	645	954	848	469	1020
20	704	1420	1300	1500	700	1100	332	913	811	809	334	600
21	265	1070	1100	1200	400	600	200	515	848	831	432	370
22	205	1490	1100	1300	600	300	100	788	913	1180	422	251
23	238	1690	900	1300	500	100	100	322	898	811	250	250
24	472	1060	1200	1300	700	100	100	200	911	740	304	250
25	1110	1010	1200	1200	600	100	100	329	862	610	200	250
26	250	1100	1000	1100	700	700	300	521	898	675	250	250
27	200	1060	900	1100	600	500	562	470	742	602	595	250
28	200	1100	1200	1300	700	400	502	383	616	456	482	250
29	300	900	1000	1300	---	800	879	337	1000	854	460	250
30	400	850	1200	1000	---	300	699	349	1230	394	200	200
31	706	---	1300	1100	---	500	---	472	---	739	362	---
TOTAL	29779	33733	34900	37100	18200	17100	14388	21557	22381	25558	17589	12328
MEAN	961	1124	1126	1197	650	552	480	695	746	824	567	411
MAX	2650	1830	1500	1500	1100	1200	879	1150	1230	1250	1110	1660
MIN	200	418	800	900	300	100	100	200	200	394	200	100
AC-FT	59070	66910	69220	73590	36100	33920	28540	42760	44390	50690	34890	24450

CAL YR 1976 TOTAL 453935 MEAN 1240 MAA 3170 MIN 100 AC-FT 900400
WTR YR 1977 TOTAL 284613 MEAN 780 MAX 2650 MIN 100 AC-FT 564500

10093000 CUB RIVER NEAR PRESTON, ID

LOCATION.--Lat 42°08'28", long 111°41'19", in SW¼ sec.5, T.15 S., R.41 E., Franklin County, Hydrologic Unit 16010202, Cache National Forest, on right bank 0.2 mi (0.3 km) upstream from headgates of Cub River-Worm Creek Canal, 0.7 mi (1.1 km) upstream from forest boundary, and 10 mi (16 km) east of Preston.

DRAINAGE AREA.--31.6 mi² (81.8 km²).

PERIOD OF RECORD.--March 1940 to September 1952, October 1955 to current year.

REVISED RECORDS.--WRD ID 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,285.1 ft (1,610.90 m) above mean sea level, unadjusted.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--34 years, 83.5 ft³/s (2.36 m³/s), 60,500 acre-ft/yr (74.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 803 ft³/s (22.7 m³/s) June 11, 1971; maximum gage height, 3.83 ft (1.167 m) June 2, 1943; no flow for part of Jan. 29, 1965, result of snowslide.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 144 ft³/s (4.08 m³/s) Apr. 26 (gage height, 1.32 ft or 0.402 m); minimum, 14 ft³/s (0.40 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	24	19	19	15	15	16	82	113	37	23	20
2	30	24	19	19	15	15	15	72	126	37	23	20
3	32	24	19	20	15	15	15	68	130	36	23	20
4	29	24	19	20	15	15	15	65	128	35	23	20
5	29	24	19	19	15	15	18	58	124	34	22	19
6	28	24	19	20	15	15	20	53	120	33	22	19
7	28	23	19	20	15	15	21	49	114	32	22	19
8	28	23	19	20	15	15	25	55	105	31	22	18
9	28	23	19	20	15	15	26	70	99	31	22	18
10	26	23	19	20	15	15	26	73	92	30	22	18
11	28	23	19	20	14	15	25	63	83	30	22	18
12	27	23	18	19	14	15	26	57	77	29	22	18
13	28	23	18	19	14	15	27	59	71	29	21	18
14	28	23	18	19	14	15	28	65	67	28	22	18
15	28	22	18	19	14	15	28	65	62	28	22	18
16	27	22	18	19	14	15	26	67	59	27	22	18
17	27	22	18	19	14	15	30	65	56	27	21	19
18	27	23	18	18	14	15	31	62	54	27	24	17
19	27	22	18	18	14	15	31	63	52	26	22	17
20	26	21	18	18	14	15	29	65	51	27	22	17
21	26	21	18	17	14	15	32	69	49	26	21	17
22	26	21	18	16	14	15	44	87	47	26	21	18
23	26	21	19	16	14	15	52	92	45	25	21	17
24	26	21	19	16	15	16	70	104	43	26	21	17
25	26	21	19	16	15	15	96	113	42	25	21	17
26	25	21	19	16	15	15	119	113	41	24	24	17
27	25	20	19	16	15	15	118	113	40	24	22	17
28	25	20	19	16	15	15	108	117	39	24	22	17
29	25	20	19	16	---	15	96	112	39	23	21	17
30	25	19	19	15	---	15	91	104	38	23	21	18
31	24	---	19	15	---	15	---	101	---	23	20	---
TOTAL	841	665	578	560	407	466	1304	2401	2206	883	679	541
MEAN	27.1	22.2	18.6	18.1	14.5	15.0	43.5	77.5	73.5	28.5	21.9	18.0
MAX	32	24	19	20	15	16	119	117	130	37	24	20
MIN	24	19	18	15	14	15	15	49	38	23	20	17
AC-FT	1670	1320	1150	1110	807	924	2590	4760	4380	1750	1350	1070

CAL YR 1976 TOTAL 31181 MEAN 85.2 MAX 501 MIN 18 AC-FT 61850
WTR YR 1977 TOTAL 11531 MEAN 31.6 MAX 130 MIN 14 AC-FT 22870

10125500 MALAD RIVER AT WOODRUFF, ID

LOCATION.--Lat 42°01'48", long 112°13'45", in NE¼NE¼ sec.22, T.16 S., R.36 E., Oneida County, Hydrologic Unit 16010204, at left abutment of highway bridge at Woodruff and 2.1 mi (3.4 km) north of Idaho-Utah State line.

DRAINAGE AREA.--472 mi² (1,220 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1938 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,355 ft or 1,327 m (by barometer). Prior to Mar. 6, 1951, nonrecording gage at site 300 ft (91 m) downstream at datum 0.27 ft (0.082 m) lower. Mar. 6, 1951, to Sept. 30, 1960, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by several small reservoirs above station. Diversions above station for irrigation of 25,000 (10,000) to 30,000 acres (12,000 hm²).

AVERAGE DISCHARGE.--38 years (1940-77), 62.1 ft³/s (1.759 m³/s), 45,000 acre-ft/yr (55.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft³/s (71.6 m³/s) Feb. 12, 1962 (gage height, 8.93 ft or 2.722 m); minimum, 1.8 ft³/s (0.05 m³/s) July 14, 1964 (gage height, 1.30 ft or 0.396 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 120 ft³/s (3.40 m³/s) May 27; minimum discharge, 20 ft³/s (0.57 m³/s) Aug. 17; minimum gage height, 1.87 ft (0.570 m) Sept. 18.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 9 to Nov. 4)

1.8	17	3.0	93
2.0	26	4.0	156
2.2	36	5.0	247
2.5	62	6.0	425

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	89	80	81	87	93	90	46	63	26	25	23
2	63	90	82	81	87	96	90	48	54	27	25	23
3	74	90	85	84	87	93	87	50	46	26	25	26
4	81	91	89	84	86	91	83	53	43	27	25	28
5	80	92	91	83	87	89	79	55	40	28	28	29
6	77	92	92	77	88	90	72	57	39	26	27	27
7	78	92	91	83	87	95	69	61	42	26	28	24
8	79	92	93	82	87	101	68	66	39	25	26	30
9	79	93	97	79	88	110	61	62	39	24	25	27
10	79	93	98	77	89	111	53	60	73	23	25	23
11	79	93	95	79	89	102	51	59	90	23	25	23
12	79	93	89	79	89	102	48	57	82	23	24	23
13	79	92	88	79	91	100	47	57	63	22	22	23
14	80	92	86	80	92	93	50	58	49	23	22	23
15	81	93	89	83	95	91	60	58	42	23	22	23
16	81	98	87	85	94	92	59	60	40	23	21	23
17	79	99	84	85	98	92	51	65	40	23	21	22
18	75	98	81	85	106	87	49	79	36	23	22	22
19	74	97	80	86	110	86	48	100	34	25	21	25
20	70	95	78	86	109	85	47	120	33	25	22	27
21	72	97	76	89	108	84	46	110	32	28	22	27
22	73	98	76	90	106	87	44	95	32	26	22	28
23	77	97	77	92	100	94	43	83	31	25	23	29
24	77	96	77	93	97	103	43	71	31	26	24	31
25	78	97	76	91	93	107	49	70	31	26	24	32
26	80	94	79	90	93	100	47	89	30	27	24	34
27	83	61	80	85	90	95	43	97	29	26	24	33
28	85	83	80	85	91	90	42	110	29	25	25	34
29	87	76	80	84	---	89	43	112	28	25	28	34
30	87	77	81	85	---	90	44	97	27	24	26	36
31	87	---	81	85	---	90	---	79	---	25	23	---
TOTAL	2416	2740	2618	2607	2624	2928	1706	2284	1287	774	746	812
MEAN	77.9	91.3	84.5	84.1	93.7	94.5	56.9	73.7	42.9	25.0	24.1	27.1
MAX	87	99	98	93	110	111	90	120	90	28	28	36
MIN	63	61	76	77	86	84	42	46	27	22	21	22
AC-FT	4790	5430	5190	5170	5200	5810	3380	4530	2550	1540	1480	1610

CAL YR 1976 TOTAL 37014 MEAN 101 MAX 415 MIN 30 AC-FT 73420
WTR YR 1977 TOTAL 23542 MEAN 64.5 MAX 120 MIN 21 AC-FT 46700

BEAR RIVER BASIN

10125500 MALAD RIVER AT WOODRUFF, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-71, 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1966-69, 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPER-ATURE (DEG C)	TEMPER-ATURE (DEG C)	WEATHER	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT 21...	1017	71	3500	--	2.0	10.0	0	510	120
DEC 02...	0855	82	3307	--	-13.0	5.0	0	--	--
JAN 19...	0830	86	2367	--	-9.5	4.5	0	--	--
MAR 10...	0802	116	2667	--	-4.0	6.0	2	--	--
APR 20...	1432	46	4670	--	15.5	20.0	0	--	--
MAY 25...	1340	71	4160	7.4	9.0	17.0	3	630	210
JUL 07...	0900	25	6839	--	15.5	19.0	0	--	--

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT 21...	120	51	590	69	11	52	480	--	394
DEC 02...	--	--	--	--	--	--	--	--	--
JAN 19...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--
MAY 25...	130	74	660	67	11	56	510	0	420
JUL 07...	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 21...	150	890	.4	26	2120	2.88	412	.39	.02
DEC 02...	--	--	--	--	--	--	--	--	--
JAN 19...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--
MAY 25...	260	1000	.6	28	2460	3.35	478	.34	.11
JUL 07...	--	--	--	--	--	--	--	--	--

KOOTENAI RIVER BASIN

12303000 KOOTENAI RIVER AT LIBBY, MT

LOCATION.--Lat 48°24'03", long 115°33'08", in SW¼SE¼SW¼ sec.34, T.31 N., R.31 W., Lincoln County, Hydrologic Unit 17010101, on right bank 1,800 ft (550 m) downstream from highway bridge at Libby, 0.8 mi (1.3 km) downstream from Libby Creek, and at mile 204.3 (328.7 km).

DRAINAGE AREA.--10,240 mi² (26,520 km²), approximately.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1316.

REVISED RECORDS.--WSP 1042: 1933. WSP 1246: 1912(M), 1915(M), 1916, 1918-19(M), 1924-27(M).

GAGE.--Water-stage recorder. Datum of gage is 2,041.54 ft (622.261 m) above mean sea level. Prior to Apr. 28, 1931, nonrecording gages at site 1,800 ft (550 m) upstream at different datum.

REMARKS.--Records good. Flow regulated by Lake Koocanusa since Mar. 21, 1972. Diversions for irrigation of about 14,500 acres (58.7 km²) from tributaries above station in Canada and the United States.

AVERAGE DISCHARGE.--67 years, 12,190 ft³/s (345.2 m³/s), 16.16 in/yr (410 mm/yr), 8,832,000 acre-ft/yr (10.9 km³/yr), adjusted for change in contents in Lake Koocanusa since Mar. 21, 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft³/s (3,430 m³/s) June 21, 1916 (gage height, 20.7 ft or 6.31 m, present datum, derived from gage-relation study); minimum observed, 895 ft³/s (25.3 m³/s) Jan. 11, 1930 (result of discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,700 ft³/s (1,210 m³/s) Nov. 29 (gage height, 11.08 ft or 3.377 m); minimum daily, 3,200 ft³/s (90.6 m³/s) July 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11600	17700	12300	18000	9360	13200	13000	5080	3590	10700	8560	4160
2	14100	15300	10400	18000	9430	13600	13400	10400	3830	6140	9450	4150
3	14400	15200	10500	20500	9490	19000	7620	14700	3650	3650	9410	4170
4	14200	15300	10500	18200	19200	13400	11500	15900	3660	3200	15200	4240
5	14500	15500	10500	16200	10300	3430	13100	14400	3910	3200	15500	4360
6	11600	20300	12500	20200	9720	3380	13300	13000	6300	6490	12000	4750
7	13000	20400	12800	17600	14100	5060	13200	6390	4040	11300	5280	7850
8	19300	20400	12800	20000	14500	7840	13300	4150	4200	10500	8900	5150
9	15000	20400	12700	20200	18900	8830	5880	4470	3910	11900	7900	5370
10	12300	20600	13200	20200	19300	19200	4300	4680	3640	10900	7210	4400
11	11800	20800	10900	16900	19200	16900	11800	4800	3540	11900	4560	4160
12	13600	20900	10400	16900	4560	6390	13200	4440	3440	11900	4140	4130
13	15600	6910	12300	13900	3430	3470	13300	4240	3470	11800	4120	4120
14	16100	5180	12600	15600	13100	9660	8600	4200	3400	12100	4110	4110
15	15500	12600	13900	7170	19300	11000	7390	4140	5460	11300	5830	4220
16	15700	12400	14300	5090	16900	6990	4010	4040	3400	9860	14300	4490
17	16000	13500	10500	14200	4960	7290	4020	8010	3280	6940	14800	4430
18	16100	14800	18800	13100	3420	7290	4070	4450	3240	7700	14700	4220
19	16200	14700	19300	5290	3400	4070	4020	3990	3240	13200	10900	7860
20	19900	9450	16100	4700	3380	3490	3960	3900	3240	14500	6330	9430
21	20100	6770	16000	3350	3390	11700	6780	3920	3320	14700	4130	9440
22	17900	14000	15600	3300	3640	13200	7650	3960	3320	14700	7180	9410
23	17900	15000	17500	3280	13000	12900	4570	4000	3330	14700	8570	5670
24	20300	15700	18000	9600	14100	13000	3800	3960	3300	13500	7860	5040
25	20300	9340	18200	10100	5740	10600	11500	3750	3660	12600	7250	4210
26	20400	9340	18200	13600	3400	5760	13200	3740	3760	15300	6640	7790
27	17700	9250	18300	13700	3360	4500	12700	3730	3330	15500	4180	6780
28	17500	14300	17800	13600	3500	11600	13300	3610	6210	15500	4150	17200
29	19900	31800	17900	5450	---	17600	13500	3530	9990	15600	5500	20300
30	20000	17900	17900	3250	---	11800	6560	3460	10800	8960	4360	20400
31	20100	---	18100	7720	---	13200	---	3420	---	5030	4180	---
TOTAL	507300	457770	451000	390380	278080	309350	276530	180460	127480	335270	247200	208010
MEAN	16360	15260	14550	12590	9931	9979	9218	5821	4249	10820	7974	6934
MAX	20400	31800	19300	20500	19300	19200	13500	15900	10800	15600	15500	20400
MIN	11000	5180	10400	3250	3360	3380	3800	3420	3240	3200	4110	4110
AC-FT	1006000	908000	894600	774300	551600	613600	548500	357900	252900	665000	490300	412600
MEAN†	6489	5092	3880	3176	2964	2986	6445	16670	20720	9205	7958	7119
CFSM†	.63	.50	.38	.31	.29	.29	.63	1.63	2.02	.90	.78	.70
IN†	.73	.55	.44	.36	.30	.34	.70	1.88	2.26	1.04	.90	.78
AC-FT†	399000	303000	238600	195300	164600	183600	383500	1024900	1232900	566000	489685	423600

CAL YR 1976 TOTAL 5239610 MEAN 14320 MAX 31800 MIN 3970 AC-FT 10390000
WTR YR 1977 TOTAL 3768830 MEAN 10330 MAX 31800 MIN 3200 AC-FT 7475000

CAL YR 1976† TOTAL 5240836 MEAN 14320 CFSM 1.40 IN 19.03 AC-FT 10395200
WTR YR 1977† TOTAL 2825460 MEAN 7741 CFSM 0.76 IN 10.26 AC-FT 5604300

† Adjusted for change in contents in Lake Koocanusa.

12304500 YAAK RIVER NEAR TROY, MT.

LOCATION.--Lat 48°33'43", long 115°58'09", in NE¼SE¼SE¼ sec.5, T.32 N., R.34 W., Lincoln County, Hydrologic Unit 17010103, Kootenai National Forest, on right bank 500 ft (150 m) upstream from bridge on U.S. Highway 2, 0.2 mi (0.3 km) upstream from mouth, and 7.7 mi (12.4 km) northwest of Troy.

DRAINAGE AREA.--766 mi^2 (1,984 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to September 1916 (fragmentary record), March 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,839.2 ft (560.59 m) above mean sea level. Oct. 15, 1910, to Sept. 30, 1916, nonrecording gage at several sites within 11 mi (18 km) of present site at various datums.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Diversions for irrigation of about 30 acres (0.12 km^2) above station.

AVERAGE DISCHARGE.--21 years, 919 ft^3/s (26.03 m^3/s), 16.29 in/yr (414 mm/yr), 665,800 acre-ft/yr (821 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft^3/s (343 m^3/s) May 21, 1956 (gage height, 9.70 ft or 2.957 m in gage well, 10.8 ft or 32.9 m from outside gage); minimum daily, 50 ft^3/s (1.42 m^3/s) Dec. 9, 1972.

EXTREMES OUTSIDE PERIOD OF RECORDS.--Flood in May to June 1948 reached a stage of 11.0 ft (3.35 m) from floodmarks (discharge, 12,500 ft^3/s or 354 m^3/s). Flood in May 1954 reached a stage of 11.4 ft (3.47 m) from floodmarks (discharge, 13,400 ft^3/s or 379 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) May 2 (gage height, 5.73 ft or 1.747 m), no peak above base of 5,000 ft^3/s (142 m^3/s); minimum daily, 55 ft^3/s (1.56 m^3/s) Jan. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	260	153	75	95	117	132	1400	574	200	108	121
2	166	288	145	55	90	117	129	1690	643	190	103	109
3	203	244	139	60	90	115	127	1820	605	183	100	105
4	146	203	131	65	85	114	142	1500	587	180	101	121
5	183	169	121	70	85	113	195	1190	709	187	109	174
6	177	176	139	75	90	116	286	1010	670	183	103	142
7	173	167	132	80	95	183	392	924	630	177	102	130
8	169	164	144	85	100	277	538	1070	846	171	98	115
9	168	161	148	90	105	247	823	1180	900	161	95	107
10	164	155	140	100	110	194	732	1300	703	159	92	102
11	161	149	136	110	120	164	579	1630	599	159	89	99
12	158	137	123	115	140	147	509	1340	563	159	88	96
13	156	123	121	120	170	143	530	1150	545	159	89	95
14	144	134	124	120	160	135	553	1080	517	159	95	93
15	146	173	130	125	150	131	486	1020	479	156	101	92
16	145	155	129	130	140	126	480	955	469	145	101	92
17	143	167	120	135	135	117	537	916	474	135	96	113
18	143	204	127	140	135	119	490	893	438	137	91	123
19	141	199	108	130	130	122	438	846	399	140	87	123
20	139	180	100	125	130	118	403	794	380	137	85	119
21	139	142	85	120	134	116	387	801	354	123	83	127
22	139	150	95	115	136	117	386	838	321	119	82	125
23	140	147	105	110	132	129	519	823	304	114	82	117
24	140	165	120	110	124	135	855	861	287	109	86	119
25	149	198	135	105	120	133	1290	808	266	110	130	132
26	155	156	150	105	119	131	1630	737	251	131	127	130
27	149	122	174	100	116	138	1490	730	238	165	127	123
28	146	144	145	90	114	138	1330	676	226	152	119	121
29	149	165	133	80	---	131	1310	637	215	134	132	132
30	149	167	125	85	---	129	1330	605	208	122	137	142
31	149	---	100	90	---	128	---	580	---	114	130	---
TOTAL	4787	5184	3977	3115	3352	4340	19028	31804	14400	4670	3170	3539
MEAN	154	173	128	100	120	140	634	1026	480	151	102	118
MAX	203	288	174	140	170	277	1630	1820	900	200	137	174
MIN	139	122	85	55	85	113	127	580	208	109	82	92
CFSM	.20	.23	.17	.13	.16	.18	.83	1.34	.63	.20	.13	.15
IN.	.23	.25	.19	.15	.16	.21	.92	1.54	.70	.23	.15	.17
AC-FT	9500	10280	7890	6180	6650	8610	37740	63080	28560	9260	6290	7020

CAL YR 1976 TOTAL 334180 MEAN 913 MAX 9210 MIN 85 CFSM 1.19 IN 16.23 AC-FT 662800
WTR YR 1977 TOTAL 101366 MEAN 278 MAX 1820 MIN 55 CFSM .36 IN 4.92 AC-FT 201100

12305000 KOOTENAI RIVER AT LEONIA, ID

LOCATION.--Lat 48°37'04", long 116°02'47", in NW¼NW¼ sec.20, T.33 N., R.34 W., Principal meridian, Lincoln County, Mont., Hydrologic Unit 17010104, on right bank at Leonia, 450 ft (137 m) east of Montana-Idaho State line, 0.5 mi (0.8 km) upstream from Boulder Creek, and at mile 171.6 (276.1 km).

DRAINAGE AREA.--11,740 mi² (30,407 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,790.25 ft (545.668 m) above mean sea level. Prior to Oct. 1, 1970, at datum, 90 ft (27.4 m) lower. Prior to Nov. 13, 1928, nonrecording gage on bridge 250 ft (76.2 m) upstream at datum 90.41 ft (27.557 m) lower.

REMARKS.--Records fair. Diversions above station for irrigation of about 14,600 acres (5,900 hm²). Flow regulated by Libby Dam since Mar. 21, 1972 (see sta 12305000). Corps of Engineers radio telemeter at station.

AVERAGE DISCHARGE.--49 years, 14,070 ft³/s (398 m³/s), 16.28 in/yr (414 mm/yr), 10,190,000 acre-ft/yr (12.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 123,000 ft³/s (3,480 m³/s) May 28, 1948 (gage height, 33.40 ft or 10.180 m); minimum, 996 ft³/s (28.2 m³/s) Dec. 9, 1936; minimum gage height, 7.56 ft (2.304 m) Dec. 10, 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1894 and 1916 reached stages of 34.6 (70.546) and 31.6 ft (9.63 m), respectively, present datum, from information by Great Northern Railway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,900 ft³/s (1,300 m³/s) Nov. 30 (gage height, 20.98 ft or 6.305 m); minimum, 3,510 ft³/s (99.4 m³/s) Jan. 31 (gage height, 9.70 ft or 2.957 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1, 6, Nov. 14-15, 17, Nov. 28 to Jan. 10, June 29 to July 2, July 7-17, July 19 to Sept. 30)

9.0	2,720	13.0	10,000
10.0	3,890	16.0	19,700
11.0	5,490	19.0	33,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11900	18300	14200	18400	9790	9650	13500	8700	5020	11400	6640	4730
2	14200	15800	10400	18300	9880	14000	13900	11900	5440	9070	9930	4720
3	14400	15700	11100	20700	9930	19200	12000	17800	5270	4870	10700	4740
4	14300	15800	11000	18900	18180	16400	8310	19500	5180	3660	15300	4810
5	14600	15800	11000	18600	12400	5440	13700	17500	5620	3600	15900	4930
6	11800	20800	12400	20500	10200	3760	14000	16500	6810	4590	13800	5320
7	13200	20900	13400	18300	13200	4200	14300	11700	6810	10500	8300	8420
8	19000	20900	13500	19900	15000	8920	14500	6790	6490	11400	6710	7540
9	13600	20900	13200	20500	19100	8220	11700	7120	6180	12000	9530	4800
10	12500	21100	13900	20500	19500	18300	6170	7760	5470	11500	7780	5950
11	12000	21300	12500	17300	19700	17400	9320	8550	5160	12300	5130	4540
12	13800	21400	11300	16800	8980	11100	14600	7760	4920	12300	4710	4480
13	16000	7200	11800	14300	3890	3980	14600	7070	4850	12300	4690	4470
14	16300	5600	13300	16000	9480	6960	12500	6880	4800	12600	4680	4440
15	16000	13200	14200	7570	19700	11400	9590	6660	5750	12000	6400	4480
16	15900	13000	15000	5490	19400	9360	6560	6410	5640	11300	14900	4540
17	16200	14100	11800	14600	9320	7990	5460	8350	4450	9320	15400	5310
18	16300	15600	18400	13500	3820	7970	5390	8620	4310	6330	15300	4650
19	16400	15600	20000	5690	3760	5910	5280	6100	4170	12500	11500	6260
20	20100	12400	16600	5100	3710	3890	5150	5910	4120	14200	6900	9880
21	20300	9450	16600	3730	3720	7880	6180	5850	4160	15100	4700	9960
22	18100	12600	16100	3700	3710	13800	9020	5960	4130	15000	7750	9910
23	18100	16800	17100	3680	9580	13400	7980	5980	4070	15000	9140	8080
24	20500	15900	18600	10000	14500	13500	5690	6080	4030	13900	8430	5910
25	20500	10700	18600	10500	10100	13500	10900	5750	3950	13100	7820	4660
26	20600	10000	18800	14000	3820	5910	17000	5580	4750	15500	7210	6390
27	18000	9780	19000	14200	3730	7140	17300	5560	3880	15900	4750	9290
28	17800	13600	18700	14300	3670	7890	16700	5360	4650	16000	4720	15600
29	20400	28600	18400	9960	---	19100	16600	5220	9740	15800	6070	20600
30	20600	22900	18400	3610	---	11300	13200	5060	11400	12200	4930	20700
31	20700	---	18500	5530	---	13700	---	4920	---	6710	4750	---
TOTAL	514100	475730	467800	404160	291690	321170	331100	258900	161220	351950	264470	220110
MEAN	16580	15860	15090	13040	10420	10360	11040	8352	5374	11350	8531	7337
MAX	20700	28600	20000	20700	19700	19200	17300	19500	11400	16000	15900	20700
MIN	11800	5600	10400	3610	3670	3760	5150	4920	3880	3600	4680	4440
AC-FT	1020000	943600	927900	801700	578600	637000	656700	513500	319800	698100	524600	436600

CAL YR 1976 TOTAL 6075330 MEAN 16600 MAX 33100 MIN 4920 AC-FT 12050000
WTR YR 1977 TOTAL 4062400 MEAN 11130 MAX 28600 MIN 3600 AC-FT 8058000

12305500 BOULDER CREEK NEAR LEONIA, ID

LOCATION.--Lat 48°35'54", long 116°05'30", in NE¼NE¼ sec.32, T.61 N., R.3 E., Boundary County, Hydrologic Unit 17010104, Kaniksu National Forest, on left bank 0.8 mi (1.3 km) downstream from McGinty Creek, 0.8 mi (1.3 km) upstream from building of the Idamont-Zinc Mines Co., 2.5 mi (4.0 km) southwest of Leonia, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--56 mi^2 (145 km^2).

PERIOD OF RECORD.--April 1928 to September 1971, May 1973 to September 1977 (discontinued). Monthly discharge only for some periods, published in WSP 1316.

REVISED RECORDS.--WSP 1736: 1936(M). WDR ID-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,600 ft or 792 m (from topographic map). Prior to November 20, 1928, nonrecording gage at site 1 mi (1.6 km) downstream at different datum. Nov. 20, 1928, to Nov. 29, 1933, and Oct. 13, 1934, to Sept. 27, 1946, water-stage recorder, and Dec. 30, 1933, to Oct. 12, 1934, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. No regulation or diversion.

AVERAGE DISCHARGE.--47 years (1929-71, 1974-77), 120 ft^3/s (3.40 m^3/s), 29.10 in/yr (739 mm/yr), 86,940 acre-ft/yr (107 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft^3/s (88.9 m^3/s) Jan. 16, 1974 (gage height, 8.16 ft or 2.487 m); minimum, 2 ft^3/s (0.06 m^3/s) Aug. 25, Sept. 5, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 579 ft^3/s (16.4 m^3/s) May 2 (gage height, 3.87 ft or 1.180 m), no peak above base of 800 ft^3/s (22.7 m^3/s); minimum, 11 ft^3/s (0.312 m^3/s) Aug. 19-24 (gage height, 1.88 ft or 0.573 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 14, Nov. 25 to Dec. 2, Dec. 17-25, Dec. 30 to Feb. 5)

1.8	9.3	2.8	140
1.9	12.3	3.2	285
2.1	22.3	3.6	475
2.3	41	4.0	705
2.5	71		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	39	19	12	13	15	14	319	89	23	14	19
2	19	25	20	11	13	15	14	441	104	22	14	18
3	22	22	21	11	14	15	13	333	84	21	14	21
4	18	21	19	11	14	14	16	271	119	20	15	26
5	18	20	18	11	14	14	25	197	127	20	15	49
6	18	19	18	12	14	15	39	162	104	21	15	19
7	16	19	18	12	14	32	61	161	93	21	14	17
8	16	19	19	13	14	37	106	189	141	19	13	16
9	15	19	21	13	14	23	138	219	102	17	13	15
10	15	19	18	14	15	19	87	236	84	18	13	15
11	14	18	18	15	18	17	77	229	77	22	13	14
12	14	16	16	16	18	16	80	177	77	19	12	14
13	14	14	17	17	22	16	106	174	71	18	12	14
14	14	13	18	17	18	15	89	167	63	18	16	13
15	14	19	17	18	16	15	74	154	57	17	14	13
16	14	21	17	19	16	15	102	143	54	17	13	13
17	14	30	16	19	16	15	91	138	51	16	12	22
18	14	44	15	19	16	15	79	131	46	19	13	18
19	14	28	15	19	16	15	67	121	42	31	11	16
20	14	22	15	19	16	16	64	128	41	25	11	17
21	14	23	16	18	18	14	65	137	39	20	11	27
22	14	26	17	17	17	14	84	135	36	18	11	23
23	14	22	18	16	16	14	152	129	35	17	11	20
24	14	30	20	16	15	14	253	130	32	15	21	21
25	17	26	22	15	15	14	362	112	31	17	24	28
26	17	21	24	15	15	14	371	115	29	20	18	24
27	17	20	25	15	15	14	305	116	28	25	21	22
28	18	19	19	14	14	14	282	99	26	18	20	21
29	18	18	18	14	---	14	283	92	24	16	30	32
30	18	19	16	13	---	14	314	84	24	15	23	27
31	21	---	13	13	---	15	---	82	---	15	20	---
TOTAL	496	671	563	464	436	509	3813	5321	1930	600	477	614
MEAN	16.0	22.4	18.2	15.0	15.6	16.4	127	172	64.3	19.4	15.4	20.5
MAX	22	44	25	19	22	37	371	441	141	31	30	49
MIN	14	13	13	11	13	14	13	82	24	15	11	13
CFSM	.29	.40	.33	.27	.28	.29	2.27	3.07	1.15	.35	.28	.37
IN.	.33	.45	.37	.31	.29	.34	2.53	3.53	1.28	.40	.32	.41
AC-FT	984	1330	1120	920	865	1010	7560	10550	3830	1190	946	1220

CAL YR 1976 TOTAL 42346 MEAN 116 MAX 1140 MIN 13 CFSM 2.07 IN 28.13 AC-FT 83990
WTR YR 1977 TOTAL 15894 MEAN 43.5 MAX 441 MIN 11 CFSM .78 IN 10.56 AC-FT 31530

12306500 MOYIE RIVER AT EASTPORT, ID
(International gaging station)

LOCATION.--Lat 48°59'58", long 116°10'43", in NE¼SE¼ sec.10, T.65 N., R.2 E., Boundary County, Hydrologic Unit 17010105, Kaniksu National Forest, on left bank at Eastport, 1,000 ft (305 m) downstream from international boundary, and at mile 25.0 (40.2 km).

DRAINAGE AREA.--570 mi² (1,476 km²), approximately.

PERIOD OF RECORD.--January to December 1915, March to December 1916, August 1929 to current year in reports of Geological Survey. Monthly discharge only for some periods, published in WSP 1736.

GAGE.--Water-stage recorder. Datum of gage is 2,620.06 ft (798.594 m) above mean sea level. January 1915 to December 1916 nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. No regulation or diversion above station.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--48 years, 714 ft³/s (20.2 m³/s), 17.01 in/yr (432.1 mm/yr), 517,300 acre-ft/yr (638 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,600 ft³/s (300 m³/s) June 19, 1916; maximum gage height, 10.55 ft (3.216 m) May 20, 1954; minimum discharge, 23 ft³/s (0.651 m³/s) Nov. 7, 1936 (gage height, 3.20 ft or 0.975 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,950 ft³/s (55.2 m³/s) May 2 (gage height, 6.14 ft or 1.872 m), no peak above base of 2,900 ft³/s (82.1 m³/s); minimum, 46 ft³/s (1.30 m³/s) Aug. 23 (gage height, 3.38 ft or 1.030 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 12-15, 21-22, Nov. 24 to Dec. 1, Dec. 5, 18-24, Dec. 28 to Jan. 5, 8-9, Jan. 29 to Feb. 5, Feb. 8-9)

Oct. 1 to Apr. 27				Apr. 28 to Sept. 30			
3.4	44	4.5	505	3.3	35	4.5	483
3.5	68	5.0	850	3.4	49	5.0	833
3.7	141	5.5	1,280	3.6	87	5.5	1,250
4.0	250			3.8	142	6.5	2,400
				4.1	260		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	132	78	71	62	68	77	1530	712	201	81	68
2	129	131	82	70	63	68	75	1750	741	189	79	64
3	153	114	86	68	64	66	72	1890	697	181	76	66
4	136	112	79	68	64	64	82	1820	756	177	83	70
5	129	111	75	70	63	60	99	1610	810	174	81	74
6	128	107	68	70	61	63	123	1430	764	163	79	74
7	126	104	79	70	60	79	158	1290	756	156	76	70
8	125	104	82	70	60	112	221	1310	990	153	74	64
9	121	101	86	72	60	104	344	1360	879	146	70	63
10	116	100	79	74	63	97	318	1460	810	149	68	63
11	114	91	75	76	69	90	280	1740	764	146	66	61
12	113	85	75	79	92	86	272	1530	779	142	64	59
13	110	75	90	82	96	86	312	1420	741	146	64	59
14	105	76	79	85	163	81	330	1320	675	136	64	58
15	104	85	75	89	141	76	310	1230	633	133	64	56
16	104	100	75	90	79	75	311	1160	612	127	64	54
17	102	104	79	90	82	75	322	1090	586	121	61	64
18	99	122	70	89	106	72	317	1050	533	118	59	79
19	96	108	68	88	148	73	302	990	496	112	56	76
20	96	100	66	87	118	69	295	942	464	110	54	74
21	95	92	67	85	82	70	292	942	427	107	52	79
22	94	96	68	82	87	79	290	926	392	102	51	81
23	93	93	69	79	85	81	364	918	369	97	48	79
24	92	87	70	78	80	84	589	958	341	92	66	81
25	102	83	72	77	76	80	957	918	304	92	102	86
26	95	80	79	75	70	79	1310	895	280	102	81	90
27	91	76	90	75	68	84	1280	864	260	105	72	85
28	91	74	83	68	66	83	1250	810	243	107	72	87
29	95	74	79	65	---	78	1320	771	230	97	79	87
30	95	77	75	64	---	77	1430	741	217	90	90	100
31	97	---	73	62	---	79	---	704	---	85	72	---
TOTAL	3364	2894	2371	2368	2328	2438	13702	37369	17261	4056	2168	2171
MEAN	109	96.5	76.5	76.4	83.1	78.6	457	1205	575	131	69.9	72.4
MAX	153	132	90	90	163	112	1430	1890	990	201	102	100
MIN	91	74	66	62	60	60	72	704	217	85	48	54
CFSM	.19	.17	.13	.13	.15	.14	.80	2.11	1.01	.23	.12	.13
IN.	.22	.19	.15	.15	.15	.16	.89	2.44	1.13	.26	.14	.14
AC-FT	6670	5740	4700	4700	4620	4840	27180	74120	34240	8050	4300	4310

CAL YR 1976 TOTAL 295800 MEAN 808 MAX 8340 MIN 66 CFSM 1.42 IN 19.30 AC-FT 586700
WTR YR 1977 TOTAL 92490 MEAN 253 MAX 1890 MIN 48 CFSM .44 IN 6.04 AC-FT 183500

12307500 MOYIE RIVER AT EILEEN, ID

LOCATION.--Lat 48°46'27", long 116°09'26", in NE¼NE¼ sec.35, T.63 N., R.2 E., Boundary County, Hydrologic Unit 17010105, on right bank 800 ft (244 m) downstream from Skin Creek, 0.3 mi (0.5 km) southeast of Eileen, and at mile 5.0 (8 km).

DRAINAGE AREA.--755 mi² (1,955 km²).

PERIOD OF RECORD.--October 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,124.5 ft (648 m) above mean sea level (river-profile survey). Prior to June 1, 1928, nonrecording gage and June 1, 1928, to Sept. 30, 1944, water-stage recorder at same site at datum 1.0 ft (0.3 m) higher.

REMARKS.--Records excellent except those for winter periods, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--52 years, 886 ft³/s (25.1 m³/s), 15.94 in/yr (405 mm/yr), 641,900 acre-ft/yr (791 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s (312 m³/s) May 20, 1954 (gage height, 6.99 ft or 2.131 m); minimum, 40 ft³/s (1.13 m³/s) Nov. 27, 1936, and Dec. 17, 1964, both the result of freezeup; minimum gage height, 0.50 ft (0.15 m) Feb. 22, 1944, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 19, 1916, was about 12,000 ft³/s (340 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,530 ft³/s (71.6 m³/s) May 3 (gage height, 3.74 ft or 1.140 m), no peak above base of 3,500 ft³/s (99.1 m³/s); minimum, 68 ft³/s (1.93 m³/s) Aug. 23-24; minimum gage height, 0.94 ft (0.287 m) date unknown (winter period).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 27 to June 7, June 10-17; stage-discharge relation affected by ice Nov. 28-30, Jan. 25-29)

0.9	62	2.4	741
1.1	102	3.0	1,370
1.4	183	3.7	2,450
1.8	346		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	190	125	107	94	100	136	1950	989	269	113	103
2	180	203	125	102	95	101	132	2200	1030	268	109	98
3	200	183	125	100	96	99	132	2420	968	247	105	98
4	190	174	120	99	95	95	138	2300	1020	240	107	106
5	177	171	112	98	94	92	159	2030	1130	240	109	111
6	177	174	100	100	91	96	193	1600	1060	228	105	110
7	177	165	110	102	89	115	242	1630	1030	217	102	101
8	174	165	120	104	88	140	335	1650	1230	207	98	100
9	171	161	125	107	90	200	467	1690	1190	196	94	96
10	168	161	120	110	94	185	472	1810	1100	190	91	93
11	161	161	115	113	107	169	419	2120	1050	190	87	90
12	161	146	110	118	125	160	400	1910	1060	187	85	87
13	158	136	130	122	155	155	442	1770	1030	187	85	67
14	155	141	120	127	240	150	470	1660	958	183	91	85
15	152	158	116	130	210	144	444	1570	888	174	96	83
16	152	171	113	135	115	139	436	1480	840	165	89	83
17	152	174	110	140	120	137	452	1410	804	155	83	106
18	152	183	107	142	150	134	444	1360	735	152	79	121
19	149	187	102	140	215	136	428	1300	678	146	75	118
20	149	165	99	138	170	130	413	1260	632	141	73	114
21	146	146	98	136	130	130	404	1240	595	138	72	118
22	149	165	100	132	125	135	400	1250	541	136	70	118
23	146	161	102	128	122	141	481	1230	508	128	68	117
24	146	168	105	123	119	144	748	1260	477	123	89	118
25	155	183	108	115	115	143	1230	1220	440	123	128	130
26	155	158	112	110	108	139	1730	1190	405	133	133	136
27	152	130	128	105	102	143	1710	1170	378	152	113	130
28	149	125	124	100	98	139	1660	1120	356	141	107	126
29	152	120	120	97	---	135	1740	1070	331	130	116	134
30	152	120	114	94	---	132	1830	1040	307	120	123	142
31	155	---	110	93	---	135	---	999	---	118	114	---
TOTAL	4977	4845	3525	3567	3452	4193	18687	48109	23760	5444	3009	3259
MEAN	161	162	114	115	123	135	623	1552	792	176	97.1	109
MAX	200	203	130	142	240	200	1830	2420	1230	289	133	142
MIN	146	120	98	93	88	92	132	999	307	118	68	83
CFSM	.21	.22	.15	.15	.16	.18	.83	2.06	1.05	.23	.13	.14
IN.	.25	.24	.17	.18	.17	.21	.92	2.37	1.17	.27	.15	.16
AC-FT	9870	9610	6990	7080	6850	8320	37070	95420	47130	10800	5970	6460

CAL YR 1976 TOTAL 362872 MEAN 991 MAX 8340 MIN 98 CFSM 1.31 IN 17.88 AC-FT 719800
WTR YR 1977 TOTAL 126827 MEAN 347 MAX 2420 MIN 68 CFSM .46 IN 6.25 AC-FT 251600

12309500 KOOTENAI RIVER AT BONNERS FERRY, ID

LOCATION.--Lat 48°42'00", long 116°18'45", in NE¼ sec.27, T.62 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on left bank 43 ft (13 m) downstream from highway bridge at Bonners Ferry, and at mile 152.8 (245.9 km).

DRAINAGE AREA.--13,000 mi^2 (33,670 km^2), approximately.

PERIOD OF RECORD.--May to October 1904, October 1927 to current year (elevations only prior to March 1928 and October 1960 to current year). Gage heights collected in this vicinity since 1904 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,743.00 ft (531.266 m) above mean sea level with respect to Geological Survey bench mark V-3-1929 at elevation 1,777.08 ft (541.654 m). Gage heights have been reduced to elevations above mean sea level. Datum of 1929, supplementary adjustment of 1947, is 0.02 ft (0.061 m) higher. May 1 to Oct. 15, 1904, nonrecording gage on railroad bridge 0.8 mi (1.3 km) downstream at different datum. Oct. 1, 1927, to Nov. 30, 1929, nonrecording gage near left bank. Dec. 1, 1929, to June 12, 1933, nonrecording gages on old highway bridge 40 ft (12 m) downstream. Nonrecording gage near right bank on downstream side of highway bridge at Bonners Ferry June 13, 1933, to Sept. 30, 1960, and supplementary gage thereafter. Datum of gages Oct. 1, 1927, to Jan. 2, 1931, was about 0.23 ft (0.070 m) lower.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year. Flow regulated by Libby Dam since Mar. 21, 1972 (see sta 12305000).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,780.13 ft (542.584 m) May 29, 1961; minimum, 1,741.14 ft (530.699 m) Dec. 5, 1929, Dec. 29, 1930, datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of 1,777.2 ft (541.69 m), present datum.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,757.01 ft (535.537 m) Nov. 30; minimum elevation, 1,743.61 ft (531.452 m) Apr. 21.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.72	51.89	50.14	50.61	46.68	45.26	46.95	46.61	45.00	47.33	45.48	45.15
2	48.22	50.60	48.38	50.60	46.83	47.81	46.95	46.85	45.21	46.79	47.05	45.08
3	49.04	50.29	48.31	51.37	46.86	49.49	46.88	49.98	45.28	45.33	47.32	45.05
4	49.09	50.19	48.17	51.33	48.96	49.34	44.68	50.94	45.23	44.90	47.30	45.10
5	49.14	50.15	48.00	50.73	48.99	46.21	46.67	50.75	45.40	44.79	49.28	45.28
6	48.49	50.95	48.29	51.09	47.27	44.46	46.98	50.38	45.81	44.87	49.04	45.35
7	48.08	51.74	48.78	51.05	47.75	44.29	47.18	48.81	45.96	46.58	47.37	45.67
8	50.16	51.84	48.72	50.80	48.87	45.11	47.32	46.14	45.97	47.44	45.47	46.52
9	49.97	51.86	48.60	51.27	50.32	45.36	47.39	46.01	46.00	47.24	47.09	45.43
10	48.55	51.89	48.79	51.35	50.76	47.79	44.49	46.49	45.74	47.47	46.11	45.89
11	48.29	51.95	48.54	50.94	50.96	49.35	44.45	46.95	45.65	47.65	46.29	45.57
12	48.36	52.02	47.85	50.53	48.66	48.29	47.20	46.95	45.39	47.84	45.21	45.54
13	49.53	50.05	47.75	48.37	45.04	44.69	47.43	46.58	45.30	47.95	45.12	45.52
14	50.01	46.53	48.46	49.51	45.45	44.76	47.33	46.39	45.21	48.11	45.08	45.47
15	50.00	46.55	48.71	48.75	49.95	46.51	45.39	46.27	45.62	48.01	45.01	45.61
16	49.89	50.17	48.94	45.85	50.53	46.37	44.85	46.12	45.47	47.81	46.42	45.61
17	50.00	47.70	48.48	46.79	48.51	45.17	44.11	46.12	45.20	47.22	48.87	45.79
18	50.00	48.80	49.44	49.49	44.97	45.16	44.01	47.37	45.16	45.60	48.90	45.70
19	50.03	49.55	50.83	46.95	44.82	44.86	43.87	45.94	45.14	47.28	48.67	45.77
20	50.98	49.51	50.14	45.79	44.76	44.16	43.74	45.66	45.11	48.50	47.74	47.16
21	51.39	47.66	49.86	45.24	44.74	44.31	43.68	45.54	45.11	48.98	45.42	47.41
22	50.88	47.87	49.68	45.03	44.71	47.09	45.01	45.63	45.02	49.02	45.32	47.36
23	50.71	50.43	49.64	44.95	45.48	47.10	44.92	45.63	45.00	49.06	46.28	47.35
24	51.35	49.97	50.44	44.95	48.11	47.08	44.00	45.63	44.93	48.95	46.74	46.26
25	51.64	49.02	50.53	46.16	47.93	47.16	45.05	45.62	44.84	48.63	46.45	46.02
26	51.69	48.00	50.60	47.58	44.74	45.34	48.77	45.51	45.02	48.73	46.47	46.02
27	51.08	47.78	50.81	48.25	44.62	44.65	49.11	45.40	44.85	49.45	46.12	47.32
28	50.90	48.11	50.82	48.38	44.56	44.08	49.28	45.27	45.01	49.48	45.21	48.58
29	51.63	52.05	50.62	48.07	---	48.42	49.41	45.10	46.70	49.44	45.27	51.12
30	51.82	54.57	50.59	44.94	---	46.72	49.19	45.02	47.35	49.18	45.66	51.59
31	51.86	---	50.58	44.93	---	46.86	---	45.95	---	46.49	45.22	---
MAX	51.86	54.57	50.83	51.37	50.96	49.49	49.41	50.94	47.35	49.48	49.28	51.59
MIN	47.72	46.53	47.75	44.93	44.56	44.08	43.68	45.02	44.84	44.79	45.01	45.05

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12313500 BALL CREEK NEAR BONNERS FERRY, ID

LOCATION.--Lat 48°47'40", long 116°24'54", in SW¼NW¼SW¼ sec.24, T.63 N., R.1 W., Boundary County, Hydrologic Unit 17010104, on right bank 600 ft (183 m) above county road bridge, 0.5 mi (0.8 km) upstream from mouth, and 8.2 mi (13.2 km) northwest of Bonners Ferry.

DRAINAGE AREA.--26.6 mi² (68.9 km²).

PERIOD OF RECORD.--June to September 1928, April to August 1929, April to September 1930, March to September 1931-34, September 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,820 ft or 555 m (from topographic map). June 1928 to September 1934 nonrecording gage at site 30 ft (9 m) downstream at same datum.

REMARKS.--Records fair. Diversion above station varies from 10 ft³/s (0.28 m³/s) during high stages to approximately 50 percent of flow during July to September.

AVERAGE DISCHARGE.--6 years, 62.6 ft³/s (1.77 m³/s), 31.96 in/yr (812 mm/yr), 45,350 acre-ft/yr (55.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,180 ft³/s (61.7 m³/s) June 17, 1974 (gage height 7.27 ft or 2.22 m); minimum discharge observed, 0.95 ft³/s (26.9 dm³/s) Aug. 23, 24, 1977; minimum gage height, 2.61 ft (0.796 m) Sept. 12-19, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft³/s (5.61 m³/s) May 2, no peak above base of 300 ft³/s (8.50 m³/s); maximum gage height, 5.21 ft (1.588 m) Jan. 3; minimum discharge, 0.95 ft³/s (26.9 dm³/s) Aug. 23, 24 (gage height, 3.05 ft or 0.930 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 13, Apr. 17 to Sept. 30; stage-discharge relation affected by ice Nov. 13-15, 21-22, Nov. 27 to Dec. 4, Dec. 14-15, 20-22, Dec. 30 to Jan. 11, Jan. 30, 31)

2.9	0.5	3.6	23.0
3.0	1.4	3.8	36.0
3.1	3.0	4.0	53
3.2	5.5	4.4	108
3.4	12.5	4.8	195

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	20	4.1	3.6	3.0	4.8	4.6	110	73	16	3.3	5.5
2	8.6	10	4.2	3.3	3.0	4.8	4.5	152	77	14	2.8	5.0
3	13	8.0	4.2	3.1	3.3	4.8	4.2	137	62	14	2.8	5.0
4	8.7	7.7	4.1	3.1	3.0	4.8	5.3	95	76	13	4.0	6.4
5	8.3	7.4	4.0	3.1	3.0	4.8	10	92	121	13	3.3	12
6	9.0	7.4	4.2	3.1	2.8	4.8	16	73	90	13	2.7	7.7
7	8.3	6.7	4.0	3.2	2.8	6.1	24	67	93	12	2.0	6.4
8	7.4	6.7	4.8	3.2	2.8	7.7	44	72	114	11	1.9	6.7
9	6.7	6.4	4.8	3.3	2.8	7.4	52	90	74	11	1.7	6.4
10	6.4	6.1	4.5	3.4	3.0	6.7	30	114	63	11	1.7	4.8
11	6.1	4.8	4.5	3.5	3.5	6.1	24	115	57	11	1.6	4.2
12	5.8	4.0	4.2	3.7	4.2	5.5	27	87	56	11	1.4	3.7
13	6.1	3.8	4.5	4.0	7.4	5.2	32	83	54	10	1.6	3.7
14	5.5	3.6	4.5	4.2	6.7	5.1	28	84	49	11	8.0	3.3
15	5.3	3.7	4.7	4.2	5.0	4.8	23	81	48	9.3	4.2	2.8
16	5.5	8.3	4.8	4.2	4.8	4.8	32	80	47	8.6	2.5	3.3
17	5.3	10	5.3	4.5	4.8	4.8	28	78	44	9.3	1.9	8.3
18	5.3	9.3	5.0	9.7	4.5	4.8	24	78	41	8.6	1.6	6.7
19	5.0	6.7	4.8	13	4.2	4.9	21	74	38	8.0	1.3	5.5
20	5.0	4.5	4.4	13	4.5	5.1	20	76	36	6.7	1.1	7.1
21	5.0	4.3	4.3	8.0	4.5	4.9	21	83	34	6.1	1.0	7.7
22	5.0	4.3	4.5	6.7	4.5	4.5	30	84	33	5.5	1.0	8.0
23	4.8	5.3	5.0	6.1	4.5	4.5	60	86	30	5.0	1.0	6.7
24	4.5	6.7	5.0	5.8	4.5	4.4	87	89	27	4.5	9.0	6.7
25	5.3	6.1	4.5	5.8	4.5	4.4	127	80	23	5.0	17	9.7
26	4.8	4.8	4.8	5.5	4.5	4.4	130	80	21	6.7	11	9.0
27	5.0	4.0	5.5	4.0	4.5	4.5	115	74	20	5.8	12	8.0
28	5.0	3.4	5.3	3.3	4.5	4.4	100	69	19	5.5	9.0	8.0
29	5.5	3.7	4.8	3.0	---	4.4	103	66	18	4.5	13	13
30	4.8	3.9	4.5	2.8	---	4.5	112	63	18	4.0	9.3	12
31	6.7	---	4.0	2.7	---	4.8	---	68	---	3.5	6.7	---
TOTAL	194.4	191.6	141.8	150.1	115.1	157.5	1338.6	2680	1556	277.6	141.4	203.3
MEAN	6.27	6.39	4.57	4.84	4.11	5.08	44.6	86.5	51.9	8.95	4.56	6.78
MAX	13	20	5.5	13	7.4	7.7	130	152	121	16	17	13
MIN	4.5	3.4	4.0	2.7	2.8	4.4	4.2	63	18	3.5	1.0	2.8
CFSM	.24	.24	.17	.18	.16	.19	1.68	3.25	1.95	.34	.17	.26
IN.	.27	.27	.20	.21	.16	.22	1.87	3.75	2.18	.39	.20	.28
AC-FT	386	380	281	298	228	312	2660	5320	3090	551	280	403

CAL YR 1976 TOTAL 19370.2 MEAN 52.9 MAX 581 MIN 3.4 CFSM 1.99 IN 27.09 AC-FT 38420
WTR YR 1977 TOTAL 7147.4 MEAN 19.6 MAX 152 MIN 1.0 CFSM .74 IN 10.00 AC-FT 14180

12314000 KOOTENAI RIVER AT KLOCKMANN RANCH, NEAR BONNERS FERRY, ID

LOCATION.--Lat 48°47'38", long 116°22'51", in SE¼NW¼SE¼ sec.19, T.63 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on right bank 0.3 mi (0.5 km) downstream from dike of drainage district No. 5, 8 mi (12.9 km) north of Bonners Ferry, and at mile 139.7 (224.2 km).

DRAINAGE AREA.--13,300 mi² (34,450 km²), approximately.

PERIOD OF RECORD.--May to July, September to November 1928, April to September, December 1929, April 1930 to current year (elevations only, fragmentary prior to April 1930).

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft (518.1 m) above mean sea level, levels by Topographic Division in 1928. Gage readings have been reduced to elevations above mean sea level. Datum of 1929 is about 0.03 ft (0.009 m) higher. Prior to Sept. 12, 1928, several nonrecording gages within 300 ft (91.4 m) at different datums.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year. Flow regulated by Libby Dam since Mar. 18, 1972 (see sta 12305000).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,776.41 ft (541.450 m) June 7, 1961; minimum, 1,738.76 ft (529.974 m) Apr. 1, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,753.78 ft (534.552 m) Nov. 30; minimum, 1,740.65 ft (530.550 m) Apr. 4.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.03	49.61	48.27	48.15	45.02	43.32	44.06	44.69	44.00	45.87	44.73	44.49
2	46.38	48.60	46.92	[illegible]	45.20	45.53	43.47	44.52	44.21	45.83	45.61	44.42
3	47.08	48.25	46.64	[illegible]	45.26	46.02	44.04	47.22	44.30	44.74	45.72	44.41
4	47.16	48.16	46.49	[illegible]	46.34	47.17	41.66	48.30	44.22	44.36	45.57	44.49
5	47.17	48.12	46.40	[illegible]	47.29	45.00	43.87	48.33	44.33	44.21	47.23	44.62
6	46.63	48.66	46.43	[illegible]	45.76	42.77	43.92	47.74	44.31	44.17	47.31	44.67
7	46.43	49.48	46.81	[illegible]	45.85	42.47	44.15	46.95	44.90	44.97	46.24	44.85
8	47.69	49.56	46.77	[illegible]	46.44	43.07	44.34	44.80	44.86	45.81	44.73	45.46
9	46.05	49.59	46.73	[illegible]	47.86	43.43	44.59	44.58	45.11	45.65	45.73	44.83
10	46.86	49.62	46.75	[illegible]	46.43	44.92	41.78	45.02	44.97	46.06	45.11	45.07
11	46.59	49.62	46.66	[illegible]	48.61	46.00	41.19	45.42	44.62	45.92	45.12	44.91
12	46.67	49.62	46.02	[illegible]	47.41	46.09	43.96	45.53	44.49	46.25	44.53	44.90
13	47.40	48.50	45.65	[illegible]	44.26	42.78	44.44	45.32	44.42	46.31	44.43	44.89
14	47.86	45.67	46.39	[illegible]	43.93	42.27	44.62	45.21	44.35	46.45	44.39	44.84
15	47.65	45.41	46.50	47.11	47.21	43.94	42.83	45.11	44.33	46.45	44.36	44.98
16	47.87	47.96	46.75	[illegible]	46.07	44.10	42.12	44.96	44.74	46.31	45.03	45.01
17	47.87	46.34	46.67	[illegible]	47.15	42.60	41.17	44.87	44.41	45.90	46.87	45.11
18	47.97	47.53	46.87	[illegible]	44.09	42.13	41.02	45.81	44.40	44.87	47.05	45.09
19	48.03	47.72	48.15	[illegible]	43.66	42.49	40.94	44.80	44.40	45.56	46.98	45.11
20	48.67	47.63	47.86	[illegible]	43.52	41.52	40.99	44.80	44.41	46.05	46.30	45.91
21	49.18	46.22	47.43	[illegible]	43.40	41.33	40.80	44.49	44.48	47.07	44.79	46.18
22	48.85	45.24	47.30	[illegible]	43.24	44.10	41.41	44.53	44.43	47.16	44.66	46.29
23	48.86	48.08	47.14	[illegible]	43.44	44.35	42.21	44.52	44.40	47.20	45.20	46.34
24	49.10	47.83	47.48	[illegible]	45.78	44.30	41.35	44.54	44.33	47.21	45.50	45.70
25	49.44	47.86	48.00	[illegible]	46.06	44.34	42.01	44.57	44.28	46.90	45.39	45.60
26	49.40	46.55	48.09	[illegible]	43.52	43.00	45.83	44.47	44.28	46.74	45.41	45.57
27	49.06	46.38	48.20	[illegible]	43.22	41.58	46.53	44.37	44.26	47.47	45.19	46.25
28	48.80	45.31	48.27	[illegible]	43.12	41.02	46.54	44.23	44.17	47.54	44.59	46.90
29	49.23	48.84	48.12	[illegible]	---	44.78	46.72	44.08	44.98	47.52	44.63	48.88
30	49.40	52.09	48.13	[illegible]	---	44.28	46.87	43.99	45.77	47.57	44.85	49.39
31	49.53	---	48.16	[illegible]	---	43.90	---	43.91	---	45.65	44.53	---
MEAN	47.98	48.16	47.14	[illegible]	45.46	43.78	43.34	45.21	44.50	46.14	45.41	45.51
MAX	49.53	52.09	48.27	[illegible]	48.61	47.17	46.87	48.33	45.77	47.57	47.31	49.39
MIN	46.03	45.41	45.65	[illegible]	43.12	41.02	40.80	43.91	44.00	44.17	44.36	44.41

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

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12316800 MISSION CREEK NEAR COPELAND, ID

LOCATION.--Lat 48°55'54", long 116°20'00", in SW¼NE¼NE¼ sec.4, T.64 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on left bank 0.1 mi (0.2 km) upstream from bridge crossing, 4 mi (6.4 km) northeast of Copeland, at mile 6.0 (9.7 km), and 17 mi (27.4 km) north of Bonners Ferry.

DRAINAGE AREA.--23 mi² (60 km²), approximately.

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,814.5 ft (857.86 m), unadjusted.

REMARKS.--Records good except those for winter periods, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--19 years, 37.4 ft³/s (1.06 m³/s), 22.08 in/yr (561 mm/yr), 27.470 acre-ft/yr (33.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 528 ft³/s (15.0 m³/s) May 26, 1961 (gage height, 5.52 ft or 1.682 m); from rating curve extended above 250 ft³/s on basis of indirect measurement of peak flow; minimum daily, 1.3 ft³/s (36.8 dm³/s) Dec. 7-11, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 79 ft³/s (2.24 m³/s) Apr. 25 (gage height, 3.09 ft or 0.942 m), no peak above base of 170 ft³/s (4.81 m³/s); minimum, 2.8 ft³/s (79.3 dm³/s) Aug. 20, 21, 22, 23, 24 (gage height, 1.85 ft or 0.564 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 11-16, Nov. 20 to Dec. 26, Dec. 29 to Feb. 18, Mar. 11-12, 14-15, 17-20, 29-30)

1.8	2.1	2.3	16
1.9	3.4	2.5	27
2.0	5.3	3.0	67
2.1	8.1	3.5	132

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	8.9	4.1	4.1	4.5	4.0	4.7	59	25	10	4.5	4.0
2	9.1	7.2	4.2	3.9	4.5	4.1	4.3	60	26	9.2	4.4	3.8
3	9.6	6.7	4.3	3.9	4.6	4.0	4.1	67	24	8.8	4.4	4.2
4	7.3	6.5	4.5	3.9	4.6	4.0	4.7	65	27	8.8	5.3	4.9
5	7.1	6.4	4.7	3.9	4.5	4.1	8.0	58	26	9.6	4.5	6.4
6	7.0	6.3	4.9	4.0	4.5	4.3	14	52	24	8.8	4.2	4.6
7	6.9	6.1	5.1	4.0	4.5	6.4	23	48	24	8.1	4.3	4.2
8	6.6	6.1	5.2	4.1	4.5	8.0	30	47	31	7.8	3.9	4.0
9	6.4	5.9	5.2	4.2	4.6	5.3	32	45	26	7.5	3.8	3.8
10	6.4	5.8	5.2	4.3	4.8	4.8	25	45	25	7.8	3.6	3.7
11	6.5	5.0	5.1	4.4	5.1	4.4	22	51	24	7.8	3.5	3.6
12	6.4	4.6	5.2	4.5	5.3	4.3	22	47	23	7.8	3.4	3.6
13	6.4	4.5	5.2	4.6	5.6	4.5	27	44	22	7.3	3.5	3.4
14	6.2	4.4	5.1	4.7	5.6	4.2	27	42	22	7.3	3.9	3.3
15	6.1	5.0	4.8	4.8	5.2	4.3	24	39	21	6.7	3.8	3.4
16	6.1	5.8	4.9	4.9	5.0	4.3	24	37	20	6.1	3.4	3.8
17	6.1	7.1	5.0	5.0	4.9	4.2	23	36	19	5.9	3.1	8.9
18	6.1	7.2	4.7	5.1	4.9	4.1	22	37	18	5.9	3.0	6.8
19	6.1	6.3	4.4	5.1	4.9	4.3	21	34	17	5.6	2.9	5.4
20	6.1	5.9	4.2	5.0	5.1	4.2	20	33	17	5.3	2.8	6.0
21	6.1	5.7	3.9	4.8	5.8	4.2	20	34	15	5.3	2.8	7.8
22	6.0	5.6	4.0	4.7	5.9	4.3	22	34	14	5.1	2.8	6.1
23	5.8	5.6	4.3	4.7	5.4	4.7	33	34	14	4.8	2.8	5.3
24	5.9	5.6	4.6	4.7	4.9	4.7	48	35	13	4.6	6.3	6.4
25	7.1	5.3	4.9	4.7	4.5	4.3	64	33	12	5.0	9.8	9.9
26	6.7	4.7	5.2	4.7	4.4	4.3	74	32	11	6.4	5.3	6.7
27	6.4	3.6	6.4	4.7	4.2	4.5	69	32	11	12	5.8	5.6
28	6.4	3.7	5.3	4.7	4.0	4.3	65	30	11	6.4	5.1	5.2
29	7.0	3.9	4.9	4.6	---	4.2	63	29	11	5.3	6.5	6.3
30	6.4	4.0	4.6	4.5	---	4.4	60	28	10	5.1	5.1	5.6
31	6.8	---	4.4	4.5	---	4.7	---	26	---	4.7	4.3	---
TOTAL	205.4	169.4	148.5	139.7	136.3	140.4	899.8	1299	583	216.8	132.8	156.7
MEAN	6.63	5.65	4.79	4.51	4.87	4.53	30.0	41.9	19.4	6.99	4.28	5.22
MAX	9.6	8.9	6.4	5.1	5.9	8.0	74	67	31	12	9.8	9.9
MIN	5.8	3.6	3.9	3.9	4.0	4.0	4.1	26	10	4.6	2.8	3.3
CFSM	.29	.25	.21	.20	.21	.20	1.30	1.82	.84	.30	.19	.23
IN.	.33	.27	.24	.23	.22	.23	1.46	2.10	.94	.35	.21	.25
AC-FT	407	336	295	277	270	278	1780	2580	1160	430	263	311

CAL YR 1976 TOTAL 13347.0 MEAN 36.5 MAX 364 MIN 3.6 CFSM 1.59 IN 21.59 AC-FT 26470
WTR YR 1977 TOTAL 4227.8 MEAN 11.6 MAX 74 MIN 2.8 CFSM .50 IN 6.84 AC-FT 8390

12318500 KOOTENAI RIVER NEAR COPELAND, ID
(International gaging station)

LOCATION.--Lat 48°54'43", long 116°24'59", in NW¼NW¼SW¼ sec.12, T.64 N., R.1 W., Boundary County, Hydrologic Unit 17010104, on right bank 0.8 mi (1.3 km) downstream from Mission Creek, 1.5 mi (2.4 km) northwest of Copeland, and at mile 123.2 (198.2 km).

DRAINAGE AREA.--13,400 mi² (34,710 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year (elevation record only prior to May 1929). Published as "at Copeland" 1927-29. April 1925 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy, Mines and Resources.

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft (518.160 m) above mean sea level, referred to bench mark T-10-1914, elevation, 1,791.49 ft or 546.046 m (datum of 1929 is about 0.04 ft or 0.012 m higher). Prior to Nov. 20, 1929, nonrecording or recording gage at site 0.8 mi (1.3 km) upstream; datum 40.77 ft (12.427 m) higher prior to Apr. 18, 1929. Gage readings have been reduced to elevations above mean sea level.

REMARKS.--Records excellent except those for periods when the fall in the reach between Klockmann Ranch (sta 12314000) and Porthill (sta 12322000) is less than 0.5 ft, which are fair. Stage-discharge relation affected by backwater from Kootenay Lake. No drainage district dike failed during year. Discharge computed from slope and conveyance of the reach between stations at Klockmann Ranch and at Porthill, and discharge measurements made at station near Copeland. Flow regulated by Libby Dam started on Mar. 18, 1972.

COOPERATION.--This station is maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--48 years (water years 1930-77), 15,710 ft³/s (445 m³/s), 15.92 in/yr (404.4 mm/yr); 11,380,000 acre-ft/yr (14,030 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 124,000 ft³/s (3,510 m³/s) May 30, 1948; maximum elevation, 1,772.55 ft (540.273 m) June 6, 1961; minimum daily discharge, 1,350 ft³/s (38.2 m³/s) Feb. 8, 1936; minimum elevation, 1,738.52 ft (529.901 m) Apr. 2, 3, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40,200 ft³/s (1,140 m³/s) Nov. 30; maximum observed elevation, 1,750.62 ft (533.589 m) Nov. 30; minimum discharge, 3,010 ft³/s (85.2 m³/s) Jan. 30; minimum observed elevation, 1,740.17 ft (530.404 m) Apr. 19, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10500	21300	16100	18900	9760	6200	14000	12000	6230	11000	4630	4620
2	11800	16600	11800	18800	10200	15400	13800	12100	6430	10600	4320	4550
3	14300	15900	11300	20700	10300	19700	14000	20600	6480	5560	9710	4550
4	14200	15800	11100	21500	15000	20600	6830	23200	6400	4060	9110	4820
5	14200	15800	11000	19200	16900	12000	12900	22600	6900	4080	15300	5120
6	12600	18600	11700	19500	10800	4360	13900	20500	6870	3970	14900	4910
7	11600	21500	13300	20500	11400	4230	14500	17500	8910	8320	10500	5800
8	17000	21400	13500	18900	15900	7900	15000	9560	7580	11400	4500	8060
9	16900	21600	13300	21200	20000	9030	15500	9100	7820	10500	9490	4450
10	12500	21600	13800	21300	21600	15200	6910	9870	6840	11700	6840	5920
11	11700	21600	13500	20300	22000	20700	6290	10600	6400	11100	7120	4640
12	12000	21600	11000	18300	16400	17700	14600	10300	6160	12000	4350	4560
13	14900	16200	10800	12600	4390	5080	15400	9240	6060	11700	4370	4560
14	16200	5740	13100	15500	5450	4880	15600	8790	6010	12100	4550	4310
15	16100	6230	13700	15400	20300	12000	9920	8520	5900	11800	4480	4830
16	16600	17500	14700	5910	22500	12100	8250	8190	7470	11400	7700	4910
17	15800	9360	14300	6840	17900	7710	5780	8110	5580	9850	14200	5350
18	16000	15300	15200	16200	4850	8000	5670	11900	5410	5650	14100	4880
19	16100	15700	20000	10900	4670	7460	5570	7760	5210	9300	13200	4900
20	18800	15200	18100	6040	4650	4320	5450	7310	5090	13200	10700	8870
21	20100	9160	16900	4480	4640	4580	5260	7260	5130	14300	3890	9290
22	18100	9630	16500	4150	4270	14100	8780	7490	4710	14400	4440	9220
23	17600	17500	16100	4070	6290	14300	9420	7460	4690	14400	7360	9160
24	19600	15500	19000	4750	16200	14200	6550	7490	4570	14300	8470	5680
25	20500	13400	19200	9800	16600	14300	8470	7310	4480	13300	7430	4860
26	20500	10200	19500	12000	4490	9810	19000	6940	5000	12800	7340	4860
27	18500	9760	19500	14500	4620	7180	20000	6810	4660	15600	6560	8650
28	17900	9880	19600	14700	4470	4740	19800	6510	4340	15500	4230	11900
29	20200	21500	18900	14500	---	17500	20000	6330	8020	15200	5030	19900
30	20900	31700	18900	3750	---	13600	19900	6180	10700	15100	5950	20900
31	21200	---	18900	3920	---	13600	---	6130	---	7610	4580	---
TOTAL	504300	482800	474300	420200	327050	342460	357050	324060	186050	341800	244350	209030
MEAN	16270	16090	15300	13550	11680	11050	11900	10450	6202	11030	7882	6968
MAX	21200	31700	20000	21500	22500	20700	20000	23200	10700	15600	15300	20900
MIN	10500	5740	10800	3750	4270	4230	5260	6130	4340	3970	3890	4310
AC-FT	1000000	957600	940800	833500	648700	679300	708200	642800	369000	678000	484700	414600

CAL YR 1976 TOTAL 6421360 MEAN 17540 MAX 39900 MIN 5740 AC-FT 12740000
WTR YR 1977 TOTAL 4213470 MEAN 11540 MAX 31700 MIN 3750 AC-FT 8357000

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44.70	47.80	46.88	46.54	44.43	42.90	42.52	43.18	43.56	45.12	44.20	44.04
2	45.00	47.19	45.86	46.48	44.57	44.59	42.34	43.16	43.72	45.04	44.95	44.07
3	45.73	46.95	45.67	46.58	44.62	44.78	42.25	44.02	43.92	44.33	44.94	44.08
4	45.76	46.71	45.55	46.82	44.76	45.36	41.15	46.48	43.74	44.11	44.74	43.45
5	45.74	46.82	45.50	46.14	46.18	43.86	42.26	46.36	43.84	43.96	46.08	44.40
6	45.60	46.86	45.30	46.40	45.10	42.50	42.15	45.85	43.80	43.90	44.16	44.36
7	45.45	47.60	45.52	46.04	45.14	42.25	42.28	45.12	44.30	44.38	45.32	44.44
8	46.24	47.71	45.39	46.21	45.94	42.35	42.44	43.80	44.42	45.02	44.30	44.82
9	46.78	47.72	45.46	46.84	46.14	42.58	42.75	43.88	44.62	44.86	45.01	44.58
10	45.55	46.63	45.29	46.74	46.46	43.24	40.52	44.10	44.26	45.22	44.60	44.76
11	45.57	47.78	45.10	46.72	46.72	44.70	40.30	44.59	44.26	45.14	44.50	44.60
12	45.72	47.66	44.74	46.19	46.22	44.55	41.96	44.68	44.00	45.50	44.30	44.68
13	46.36	47.50	44.76	45.30	43.94	42.50	42.59	44.58	44.00	45.56	44.14	44.58
14	46.62	45.64	45.30	45.92	43.53	41.90	42.75	44.54	44.00	45.72	44.10	44.62
15	46.64	44.90	45.38	46.08	45.61	42.96	41.38	44.45	44.02	45.62	44.05	44.60
16	46.58	46.60	45.48	44.14	46.05	42.98	41.15	44.36	44.29	45.63	44.43	44.71
17	46.68	45.53	45.48	43.92	45.88	41.94	40.44	44.17	44.04	45.28	45.89	44.74
18	46.58	46.58	45.02	45.72	43.75	41.78	40.22	44.94	44.09	44.52	46.06	44.76
19	46.68	46.66	45.56	44.76	43.44	41.44	40.22	44.26	44.16	44.93	45.95	44.80
20	47.05	46.57	45.84	43.88	43.20	41.04	40.30	43.94	44.12	45.76	45.46	45.27
21	47.40	45.58	45.80	43.72	43.08	41.10	40.17	43.92	44.25	46.20	45.00	45.66
22	47.33	45.61	45.65	43.46	42.96	42.86	40.76	44.02	44.22	46.26	44.28	45.74
23	47.34	46.74	45.38	43.39	43.06	42.88	41.06	43.96	44.13	46.18	44.60	45.82
24	47.44	46.38	46.24	43.15	44.76	42.76	40.40	44.00	44.00	46.30	45.04	45.25
25	47.70	46.63	46.42	43.91	44.90	43.00	40.57	44.12	43.98	45.96	45.11	45.36
26	47.76	45.90	46.45	44.50	43.40	41.98	43.47	43.98	43.92	45.80	44.96	45.32
27	47.75	45.81	46.37	44.92	43.00	40.95	44.44	43.84	43.90	45.95	44.80	45.75
28	47.54	45.75	46.61	45.27	42.86	40.43	44.54	43.77	43.95	46.44	44.30	45.94
29	47.57	46.94	46.42	45.24	---	42.18	44.80	43.58	44.37	46.42	44.35	47.18
30	47.72	50.24	46.55	43.70	---	42.48	44.92	43.58	44.99	46.52	44.56	47.54
31	47.74	---	46.60	43.50	---	42.66	---	43.54	---	44.94	44.18	---
MEAN	46.59	46.77	45.73	45.25	44.43	42.69	41.90	44.28	44.10	45.37	44.79	45.00
MAX	47.76	50.24	46.88	46.82	46.72	45.36	44.92	46.48	44.99	46.52	46.08	47.54
MIN	44.70	44.90	44.74	43.15	42.86	40.43	40.17	43.16	43.56	43.90	44.05	43.45

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued
(National Stream-Quality Accounting Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1966 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1966 to current year.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 24.0°C July 28-30, 1975; minimum daily, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 740 mg/L May 30, 1966; minimum daily, 1 mg/L on many days since 1968.
SEDIMENT LOADS: Maximum daily, 155,000 tons (140,600 tonnes) May 30, 1966; minimum daily, 5.1 tons (4.6 tonnes) Jan. 31, 1972.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 21°C June 20; minimum daily, 2.0°C Jan. 8, 13, 14.
SEDIMENT CONCENTRATIONS: Maximum daily, 44 mg/L Nov. 30; minimum daily, 1 mg/L Feb. 27, 28, Mar. 18.
SEDIMENT LOADS: Maximum daily, 3,770 tons (3,400 tonnes) Nov. 30; minimum daily, 12 tons (11 tonnes) Feb. 27, 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
01...	1120	9710	130	--	21.0	15.0	--	--	--	--	--	--
27...	1045	17900	*204	7.4	10.0	13.5	3	10.4	105	B8	--	97
NOV												
29...	1100	21700	156	7.3	4.0	8.0	5	11.4	101	B15	310	100
DEC												
28...	1040	16300	207	7.1	2.0	8.0	4	11.4	102	27	B19	110
JAN												
19...	1030	11400	210	7.7	1.0	5.5	4	12.0	101	26	91	110
FEB												
23...	1015	4680	194	7.6	5.0	6.5	10	12.1	104	B1	B5	110
MAR												
30...	1100	15400	209	7.6	9.0	9.0	3	12.4	114	B1	<1	120
APR												
20...	1015	5230	194	7.3	9.0	12.0	1	11.3	111	B6	B1	95
MAY												
25...	1045	6700	137	7.5	10.0	12.0	2	10.5	103	B8	<1	73
JUN												
22...	1100	5230	192	7.6	22.0	21.5	4	8.7	104	<1	<1	96
JUL												
19...	1145	11400	243	7.8	18.0	19.4	7	9.0	103	B2	<1	110
AUG												
16...	1000	7400	215	8.1	19.0	25.0	2	8.3	105	B8	<1	110
SEP												
13...	1000	4090	211	8.0	16.0	15.5	1	9.4	99	<1	<1	110

* Not a field determination.
B Results based on count outside of ideal colony count range.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT												
01...	--	--	--	--	--	--	--	--	--	--	--	--
27...	7	28	6.6	1.6	3	.1	.5	110	0	90	16	2.6
NOV												
29...	10	29	7.8	1.6	3	.1	.5	110	0	90	13	7.5
DEC												
28...	43	30	9.7	1.9	3	.1	.4	88	0	72	16	4.7
JAN												
19...	12	30	7.9	2.0	4	.1	.5	120	0	98	14	7.3
FEB												
23...	10	30	8.1	2.2	4	.1	.6	120	0	98	16	2.6
MAR												
30...	14	33	9.2	2.7	5	.1	.6	130	0	110	25	6.5
APR												
20...	19	26	7.4	2.2	5	.1	.6	93	0	76	17	9.7
MAY												
25...	9	20	5.6	1.9	5	.1	.5	78	0	64	11	3.6
JUN												
22...	14	27	7.0	2.5	5	.1	.6	98	0	80	15	6.9
JUL												
19...	23	31	8.6	2.9	5	.1	.6	110	0	90	15	10
AUG												
16...	12	31	8.1	2.3	4	.1	.8	120	0	98	21	2.7
SEP												
13...	28	31	8.2	2.8	5	.1	.6	100	0	82	18	2.2

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT												
01...	--	--	--	--	--	--	--	--	--	--	--	--
27...	.2	3.7	124	113	.17	5990	.09	.00	.09	.40	.01	--
NOV												
29...	.1	3.7	121	117	.16	7090	.11	.16	.27	1.2	.01	--
DEC												
28...	.1	4.0	133	111	.18	5850	.11	.16	.27	1.2	.01	1.9
JAN												
19...	.1	3.9	139	125	.19	4280	.08	.05	.13	.58	.01	--
FEB												
23...	.3	4.6	127	124	.17	1600	.08	.06	.14	.62	.02	1.0
MAR												
30...	.2	4.2	157	145	.21	6530	.04	.02	.06	.27	.00	--
APR												
20...	.3	5.5	121	115	.16	1710	.03	.08	.11	.49	.01	--
MAY												
25...	.1	5.2	80	86	.11	1450	.01	.00	.01	.04	.00	--
JUN												
22...	.1	5.0	103	113	.14	1450	.01	.00	.01	.04	.01	1.3
JUL												
19...	.1	2.8	131	125	.18	4030	.02	.20	.22	.97	.00	--
AUG												
16...	.1	3.6	124	129	.17	2480	.01	.16	.17	.75	.03	--
SEP												
13...	.1	3.8	119	116	.16	1310	.01	.00	.01	.04	.00	1.0

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS-PENDED COBALT (CO) (UG/L)
DEC 28...	2	1	1	<10	<10	0	0	0	0	<50	<49
FEB 23...	1	--	1	<10	<9	1	0	0	0	<50	<50
JUN 22...	1	--	0	<10	<9	1	10	--	0	<50	<50
SEP 13...	0	0	0	10	9	1	0	0	10	<50	<49

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)
DEC 28...	1	450	60	390	230	30	<100	<85	15	20	0
FEB 23...	0	40	26	14	590	30	100	78	22	30	0
JUN 22...	0	440	130	310	160	50	100	70	30	20	--
SEP 13...	1	<10	<9	1	50	20	<100	<96	4	20	20

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC 28...	20	.0	.0	.0	0	0	0	120	0	130
FEB 23...	30	.0	--	.0	0	0	0	30	10	20
JUN 22...	8	.1	--	.3	0	0	0	90	10	80
SEP 13...	0	.0	.0	.0	0	0	0	10	0	30

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TOTAL ALDRIN (UG/L)	TOTAL ATRA-ZINE (UG/L)	TOTAL CHLOR-DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI-AZINON (UG/L)
NOV 29...	1100	21700	ND	ND	ND	ND	ND	ND	ND
MAR 30...	1100	15400	ND	--	ND	ND	ND	ND	--
AUG 16...	1000	7400	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL DI-ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL METH-OXY-CHLOR (UG/L)	TOTAL METHYL PARA-THION (UG/L)
NOV 29...	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 30...	ND	ND	--	ND	ND	ND	--	ND	--
AUG 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	SIMA-ZINE TOTAL COUL-SON COND. (UG/L)	TOTAL TOX-APHENE (UG/L)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
NOV 29...	ND	ND	ND	ND	ND	ND	ND	ND
MAR 30...	--	--	--	ND	--	--	--	--
AUG 16...	ND	ND	ND	ND	ND	--	--	--

ND Material specifically analyzed for but not detected.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
OCT						
27...	1045	8	387	90	97	100
NOV						
29...	1100	10	586	94	99	100
DEC						
28...	1040	10	440	96	99	100
JAN						
19...	1030	6	185	98	100	--
FEB						
23...	1015	5	63	100	--	--
MAR						
30...	1100	9	374	92	100	--
APR						
20...	1015	5	71	96	100	--
MAY						
25...	1045	3	54	86	88	100
JUN						
22...	1100	4	56	95	100	--
JUL						
19...	1145	6	185	97	100	--
AUG						
16...	1000	14	280	97	99	100
SEP						
13...	1000	3	33	93	100	--

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	7.0	9.0	6.0	5.0	5.0	5.0	8.0	10.0	16.0	16.0	10.0
2	10.0	7.0	9.0	5.0	5.0	5.0	5.0	8.0	10.0	15.0	17.0	10.0
3	10.0	7.0	8.0	4.0	5.0	5.0	6.0	8.0	11.0	14.0	17.0	11.0
4	9.0	7.0	7.0	4.0	4.0	6.0	6.0	7.0	11.0	14.0	16.0	11.0
5	9.0	7.0	7.0	3.0	6.0	6.0	6.0	7.0	11.0	14.0	16.0	11.0
6	9.0	7.0	6.0	3.0	5.0	5.0	6.0	7.0	12.0	14.0	17.0	11.0
7	9.0	8.0	6.0	3.0	5.0	5.0	6.0	8.0	12.0	14.0	18.0	10.0
8	8.0	8.0	6.0	2.0	6.0	5.0	6.0	8.0	12.0	12.0	18.0	10.0
9	9.0	8.0	6.0	3.0	6.0	5.0	5.0	8.0	12.0	15.0	18.0	10.0
10	10.0	8.0	5.0	3.0	6.0	5.0	5.0	8.0	12.0	15.0	18.0	11.0
11	11.0	8.0	---	3.0	6.0	6.0	6.0	7.0	12.0	15.0	18.0	13.0
12	9.0	8.0	---	3.0	7.0	6.0	6.0	7.0	13.0	14.0	18.0	12.0
13	12.0	7.0	---	2.0	6.0	5.0	6.0	8.0	13.0	14.0	18.0	12.0
14	12.0	6.0	5.0	2.0	6.0	5.0	7.0	8.0	13.0	15.0	18.0	12.0
15	11.0	6.0	5.0	3.0	7.0	5.0	7.0	8.0	13.0	14.0	19.0	11.0
16	11.0	6.0	6.0	3.0	6.0	5.0	6.0	8.0	15.0	15.0	19.0	11.0
17	12.0	6.0	6.0	3.0	6.0	5.0	6.0	8.0	17.0	15.0	19.0	11.0
18	11.0	7.0	6.0	4.0	7.0	6.0	5.0	8.0	18.0	16.0	19.0	13.0
19	10.0	7.0	6.0	4.0	7.0	6.0	5.0	7.0	20.0	16.0	18.0	13.0
20	9.0	6.0	5.0	3.0	7.0	4.0	6.0	7.0	21.0	16.0	19.0	14.0
21	9.0	6.0	5.0	3.0	7.0	4.0	6.0	7.0	11.0	16.0	19.0	14.0
22	8.0	6.0	5.0	3.0	7.0	5.0	6.0	7.0	15.0	16.0	19.0	14.0
23	8.0	8.0	5.0	4.0	6.0	5.0	6.0	8.0	17.0	17.0	19.0	12.0
24	8.0	8.0	5.0	4.0	6.0	6.0	6.0	8.0	18.0	17.0	19.0	12.0
25	8.0	8.0	6.0	4.0	6.0	6.0	---	9.0	18.0	17.0	18.0	11.0
26	8.0	7.0	6.0	5.0	6.0	6.0	6.0	9.0	18.0	17.0	18.0	11.0
27	8.0	7.0	6.0	5.0	5.0	5.0	6.0	9.0	19.0	17.0	17.0	11.0
28	8.0	7.0	6.0	5.0	6.0	4.0	7.0	9.0	17.0	17.0	17.0	11.0
29	8.0	8.0	5.0	5.0	---	4.0	7.0	9.0	17.0	16.0	17.0	12.0
30	8.0	9.0	5.0	4.0	---	5.0	7.0	9.0	18.0	16.0	15.0	12.0
31	7.0	---	6.0	4.0	---	5.0	---	8.0	---	16.0	13.0	---
MEAN	9.5	7.0	6.0	3.5	6.0	5.0	6.0	8.0	14.5	15.5	17.5	11.5

WTR YR 1977 MEAN 9.0 MAX 21.0 MIN 2.0

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2	57	10	575	15	652	7	357	5	132	2	33
2	5	159	7	314	7	223	8	406	6	165	8	333
3	7	270	5	215	6	183	7	391	5	139	8	426
4	6	230	4	171	5	150	7	406	5	202	7	389
5	6	230	4	171	5	148	6	311	9	411	4	130
6	5	170	6	301	5	158	6	316	8	233	2	24
7	4	125	11	639	8	287	12	667	5	154	7	80
8	6	275	11	636	7	255	5	255	5	215	10	213
9	10	456	10	583	6	215	8	458	3	162	8	195
10	6	202	9	525	6	224	6	345	5	292	11	451
11	5	158	11	642	---	---	9	505	5	297	16	894
12	5	162	11	642	---	---	5	247	7	310	8	382
13	7	282	8	350	---	---	3	102	2	24	2	27
14	8	350	5	77	4	141	5	209	2	29	3	40
15	9	391	13	219	5	185	5	208	4	219	8	259
16	7	302	7	331	5	198	2	32	6	364	3	98
17	8	341	4	101	5	193	2	37	7	338	2	42
18	7	302	8	330	6	246	7	306	6	79	1	22
19	7	304	9	382	12	648	9	265	4	50	3	60
20	8	406	8	328	12	586	5	82	2	25	5	58
21	10	543	4	99	9	411	5	66	2	25	3	37
22	10	489	4	104	8	356	4	44	4	46	13	495
23	9	428	9	425	11	478	4	44	9	153	12	463
24	8	423	6	251	10	513	4	53	15	656	12	460
25	10	553	6	217	10	518	7	185	12	538	10	386
26	9	498	7	193	12	632	7	227	4	54	5	132
27	8	400	6	158	11	579	9	352	1	12	3	58
28	7	338	6	160	10	529	10	397	1	12	6	77
29	8	436	14	813	6	306	8	313	---	---	21	992
30	9	508	44	3770	6	306	7	71	---	---	14	514
31	10	572	---	---	6	306	4	41	---	---	11	404
TOTAL	---	10360	---	13722	---	9626	---	7698	---	5336	---	8174

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11	416	7	227	4	67	13	386	4	50	6	75
2	9	335	8	261	5	87	9	258	5	126	12	147
3	8	302	18	1010	5	87	6	90	8	210	6	74
4	5	92	27	1690	5	86	6	66	23	566	6	78
5	7	244	21	1290	3	56	4	44	15	620	5	69
6	8	300	16	886	3	56	5	54	11	443	7	93
7	9	352	11	520	5	120	9	202	6	170	4	63
8	10	405	4	103	8	164	14	431	5	61	4	87
9	11	460	4	98	7	148	10	283	6	154	3	36
10	4	75	4	107	4	74	12	379	4	74	3	48
11	5	85	5	143	5	86	9	270	4	77	4	50
12	12	473	6	167	5	83	12	389	3	35	3	37
13	12	499	5	125	4	65	10	316	4	47	3	37
14	9	379	3	71	3	49	10	327	5	61	3	35
15	4	107	3	69	4	64	10	319	5	60	4	52
16	3	67	3	66	9	182	8	246	9	187	3	40
17	3	47	4	88	10	151	4	106	12	460	3	43
18	2	31	8	257	2	29	6	92	11	419	3	40
19	2	30	4	84	4	56	9	226	10	356	2	26
20	3	44	4	79	5	69	15	535	6	173	4	96
21	2	28	6	118	4	55	14	541	5	53	5	125
22	3	71	5	101	6	76	14	544	6	72	5	124
23	4	102	5	101	5	63	13	505	5	99	4	99
24	3	53	3	61	4	49	9	347	8	163	2	31
25	---	---	3	59	4	48	11	395	6	120	2	26
26	22	1130	3	56	4	54	10	346	5	99	3	39
27	19	1030	3	55	4	50	11	463	6	106	3	70
28	21	1120	3	53	3	35	11	460	5	57	5	161
29	16	864	4	68	5	108	17	698	6	81	13	698
30	13	698	4	67	11	318	13	530	9	145	10	564
31	---	---	4	66	---	---	4	82	5	62	---	---
TOTAL	---	9839	---	8146	---	2635	---	9930	---	5426	---	3163

TOTAL LOAD FOR YEAR: 94055 TONS.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 27,76	NOV 29,76	DEC 28,76	JAN 19,77	FEB 23,77
TIME	1045	1100	1040	1030	1015
TOTAL CELLS/ML	690	150	480	84	10
DIVERSITY: DIVISION	0.0	0.2	0.9	0.0	0.0
.CLASS	0.0	0.2	0.9	0.0	0.0
..ORDER	0.5	1.0	1.2	0.0	0.0
...FAMILY	2.7	2.5	2.7	2.2	1.0
....GENUS	3.2	3.2	2.9	2.5	1.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	4	3	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	16	2	20	14	9	2	--	-	--	-
....MELOSIRA	57	8	24*	16	30	6	--	-	--	-
....STEPHANODISCUS	--	-	--	-	3	1	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	88	13	8	5	9	2	--	-	--	-
....COCCONEIS	41	6	4	3	12	3	6	7	--	-
....RHOICOSPHENIA	5	1	*	0	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	16	2	4	3	--	-	3	4	--	-
....CYMBELLA	100	15	8	5	24	5	6	7	--	-
....EPITHEMIA	--	-	*	0	9	2	--	-	--	-
...DIATOMACEAE										
....DIATOMA	47	7	*	0	36	8	35*	42	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	16	2	28*	19	100*	21	6	7	--	-
....HANNAEA	--	-	4	3	--	-	--	-	--	-
....SYNEDRA	--	-	4	3	--	-	6	7	5*	50
...GOMPHONEMATACEAE										
....GOMPHONEMA	36	5	*	0	21	4	--	-	--	-
...MERIDIONACEAE										
....MERIDION	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	180*	26	20	14	90*	19	16*	19	--	-
....NEIDIUM	5	1	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	83	12	20	14	--	-	3	4	5*	50
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	*	0	--	-	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....DINOBRYON	--	-	--	-	--	-	--	-	--	-
.BACILLARIOPHYCEAE										
..PENNALES										
...NAVICULACEAE										
....PLAGIOTROPIS	--	-	--	-	--	-	--	-	--	-

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 27.76		NOV 29.76		DEC 28.76		JAN 19.77		FEB 23.77	
TIME	1045		1100		1040		1030		1015	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	130#	28	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 25,77	JUN 22,77	JUL 19,77	AUG 16,77	SEP 13,77
TIME	1045	1100	1145	1000	1030
TOTAL CELLS/ML	440	2000	990	610	3700
DIVERSITY: DIVISION	0.0	0.9	0.7	1.5	1.3
.CLASS	0.0	0.9	1.2	1.6	1.4
..ORDER	0.7	1.7	1.5	2.5	1.6
...FAMILY	2.4	2.8	3.0	3.2	2.1
....GENUS	2.8	3.0	3.4	3.2	2.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	4	1	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	7	1	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	21	3	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	*	0	13	1	25	4	140	4
....DICTYOSPHAERIUM	--	-	140	7	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	46	5	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	120	6	--	-	--	-	--	-
....SCENEDESMUS	--	-	40	2	--	-	58	9	--	-
....TETRASTRUM	--	-	40	2	--	-	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	80	4	--	-	9	1	--	-
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	29	5	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	7	1	210*	34	440	12
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	66	2
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	19	4	550*	27	13	1	37	6	--	-
....MELOSIRA	59	13	*	0	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	46	5	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	*	0	40	4	--	-	66	2
....COCCONEIS	--	-	--	-	20	2	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	8	2	--	-	66	7	--	-	--	-
....CYMBELLA	21	5	--	-	--	-	--	-	100	3
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	35	8	*	0	260*	27	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	150*	33	*	0	--	-	--	-	--	-
....FRAGILARIA	--	-	440*	22	170*	17	29	5	--	-
....HANNAEA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	21	5	--	-	59	6	--	-	66	2
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	46	5	--	-	44	1
...MERIDIONACEAE										
....MERIDION	19	4	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	32	7	--	-	26	3	9	1	100	3
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	250	12	--	-	66	11	44	1
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	83*	19	280	14	--	-	--	-	270	7
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....DINOBRYON	--	-	--	-	110	11	4	1	--	-
.BACILLARIOPHYCEAE										
..PENNALES										
...NAVICULACEAE										
....PLAGIOTROPIS	--	-	--	-	--	-	4	1	--	-

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 25,77		JUN 22,77		JUL 19,77		AUG 16,77		SEP 13,77	
TIME	1045		1100		1145		1000		1000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	53	5	29	5	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	20	1	--	-	37	6	2300#	63
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	20	1	--	-	41	7	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	68	2

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)
DEC 28...	29	7.31	6.62	2.29	.412	--	--	303
SEP 13...	28	1.41	1.18	--	--	.215	.018	1070

12321500 BOUNDARY CREEK NEAR PORTHILL, ID
(International gaging station)

LOCATION.--Lat 48°59'50", long 116°34'05", in SW¼ sec.11, T.65 N., R.2 W., Boundary County, Hydrologic Unit 17010104, on left bank near mouth of canyon, 0.2 mi (0.3 km) south of international boundary, 3 mi (4.8 km) west of Porthill, and at mile 3.5 (5.6 km).

DRAINAGE AREA.--97 mi² (251 km²), approximately.

PERIOD OF RECORD.--May 1928 to current year (no winter records 1929, 1930).

GAGE.--Water-stage recorder. Altitude of gage is 1,770 ft or 539.5 m (from topographic map). Prior to Apr. 24, 1929, nonrecording gage at site 140 ft (42.7 m) upstream at different datum.

REMARKS.--Records excellent except those for winter period, which are fair. Diversion above station.

COOPERATION.--This station is maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--47 years (water year 1931-77), 197 ft³/s (5.58 m³/s), 27.58 in/yr (700.5 mm/yr), 142,700 acre-ft (176 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,540 ft³/s (100 m³/s) June 2, 1968 (gage height, 6.00 ft or 1.829 m), from rating curve extended above 2,000 ft³/s; minimum, 5 ft³/s (142 dm³/s) sometime between Nov. 10 and Dec. 3, 1936; minimum gage height, 0.24 ft (0.073 m) Nov. 22, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft³/s (34.6 m³/s) May 2 (gage height, 3.92 ft or 1.195 m), no peak above base of 1,300 ft³/s (36.8 m³/s); minimum, 16 ft³/s (0.45 m³/s) Aug. 23, 24 (gage height, 0.82 ft or 0.250 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 21 to Dec. 6, Dec. 14-26, Dec. 29 to Jan. 17, Jan. 30 to Feb. 1)

0.8	15	2.5	346
1.0	27	3.0	574
1.2	45	3.5	897
1.6	101	4.5	1,800
2.0	189	5.0	2,340

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	71	30	22	20	23	25	572	273	65	27	27
2	57	51	30	22	22	23	23	890	322	62	26	26
3	66	45	29	21	21	22	25	846	246	60	25	32
4	51	44	28	21	21	21	30	613	343	58	25	34
5	48	44	27	22	21	23	39	456	358	62	24	50
6	51	42	28	22	20	23	51	385	313	58	23	35
7	49	40	31	22	20	26	68	419	306	56	23	30
8	47	41	32	23	19	25	123	466	616	53	22	28
9	45	40	32	23	20	25	182	524	326	51	21	26
10	43	37	30	24	21	25	150	550	258	55	21	25
11	42	28	31	24	21	21	128	562	228	58	21	24
12	41	26	30	25	23	24	129	421	221	58	20	23
13	40	28	30	26	25	23	151	412	210	56	20	23
14	39	32	30	27	25	22	136	397	189	55	25	22
15	38	61	29	28	24	23	119	383	185	50	27	22
16	38	60	29	29	23	23	122	354	167	46	23	22
17	37	55	28	30	22	22	124	336	154	46	20	41
18	35	61	27	31	22	22	114	372	141	43	19	36
19	34	44	26	32	22	23	102	324	131	41	18	31
20	35	32	24	29	22	22	98	335	126	39	18	49
21	35	32	22	28	23	22	101	356	119	38	17	54
22	35	31	24	26	24	23	120	361	113	37	17	47
23	35	32	25	25	24	25	218	355	106	34	16	39
24	33	32	27	24	23	26	404	360	98	32	40	41
25	39	31	28	24	22	24	609	296	92	34	66	47
26	36	30	29	23	22	25	670	292	86	36	49	41
27	37	30	30	23	22	25	526	280	82	33	48	38
28	38	29	28	23	22	23	503	246	77	33	36	37
29	47	28	27	22	---	22	525	234	72	31	45	47
30	40	29	25	22	---	23	567	219	68	29	37	44
31	45	---	24	19	---	26	---	230	---	28	31	---
TOTAL	1300	1186	870	762	616	725	6182	12846	6026	1437	850	1041
MEAN	41.9	39.5	28.1	24.6	22.0	23.4	206	414	201	46.4	27.4	34.7
MAX	66	71	32	32	25	26	670	890	616	65	66	54
MIN	33	26	22	19	19	21	23	219	68	28	16	22
CFSM	.43	.41	.29	.25	.23	.24	2.12	4.27	2.07	.48	.28	.36
IN.	.50	.45	.33	.29	.24	.28	2.37	4.93	2.31	.55	.33	.40
AC-FT	2580	2350	1730	1510	1220	1440	12260	25480	11950	2850	1690	2060

CAL YR 1976 TOTAL 81232 MEAN 222 MAX 2220 MIN 22 CFSM 2.29 IN 31.15 AC-FT 161100
WTR YR 1977 TOTAL 33843 MEAN 92.7 MAX 690 MIN 16 CFSM .96 IN 12.98 AC-FT 67130

12322000 KOOTENAI RIVER AT PORTHILL, ID
(International gaging station)

LOCATION.--Lat 49°00'00", long 116°30'10", in SW¼ sec.8, T.65 N., R.1 W., Boundary County, Hydrologic Unit 17010104, on right bank 300 ft (91.4 m) south of international boundary at Porthill, and at mile 105.63 (170 km).

DRAINAGE AREA.--13,700 mi² (35.480 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to July 1904 and October 1927 to March 1928 (elevations only), and April 1928 to current year in reports of Geological Survey. October 1924 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy, Mines and Resources.

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft (518.160 m) above mean sea level referred to bench mark "10-M-1928", at elevation 1,767.68 ft (538.789 m). Gage readings have been reduced to elevations above mean sea level. Datum of 1929 and datum of Geodetic Survey of Canada, Pub. 24, 1951 edition, are 0.03 ft (0.091 m) higher. Prior to May 17, 1928, nonrecording gages at approximately same site. Datum of gages prior to July 28, 1928, 38.34 ft (11.686 m) higher, except in 1904 when different datum was used.

REMARKS.--Records excellent except those for periods when the fall in the reach between Klockmann Ranch (sta 12314000) and Porthill is less than 0.5 ft, which are fair. Daily discharge represents entire flow passing international boundary, and is computed by adding tributary inflow for intervening area to flow at station near Copeland and correcting for channel storage between stations near Copeland and at Porthill. Boundary dike of Reclamation Farm and U.S. Forest Service roadway dike (south side of Boundary Creek) remained intact and flow of river was confined throughout year to main channel on which gage is located. Elevations affected by backwater from Kootenay Lake. No drainage dike failed during year. Flow regulated by Libby Dam started on Mar. 18, 1972.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

AVERAGE DISCHARGE.--49 years, 16,100 ft³/s (456 m³/s), 15.95 in/yr (405.4 mm/yr), 11,660,000 acre-ft/yr (14,380 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 125,000 ft³/s (3,540 m³/s) June 1, 1948; maximum elevation, 1,767.61 ft (538.768 m) June 7, 1961; minimum daily discharge, 1,380 ft³/s (39.1 m³/s) Feb. 8, 1936; minimum elevation, 1,738.21 ft (529.806 m) Apr. 3, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 1,772.7 ft (540.319 m) in June 1894, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 30,800 ft³/s (872.3 m³/s) Nov. 30; maximum elevation, 1,748.02 ft (532.796 m) Nov. 30; minimum daily discharge, 3,940 ft³/s (111.6 m³/s) Jan. 31; minimum elevation, 1,739.86 ft (530.309 m) Apr. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10600	21400	16800	19000	9670	6270	14000	13600	6910	11100	4940	4710
2	11900	16800	12200	18900	10200	15200	13900	14500	7180	10700	9360	4640
3	14300	16200	11500	20700	10300	19600	14100	22400	7090	5830	9750	4630
4	14300	16000	11200	21400	14400	20400	7220	24400	7340	4320	9190	4880
5	14300	15900	11100	19400	16500	12400	12900	23900	7830	4330	15100	5200
6	12700	14700	11800	19600	11100	4920	13900	21000	7700	4140	14900	4950
7	11800	21400	13300	20500	11500	4450	14600	18700	9600	8410	10700	5840
8	17000	21400	13600	19100	15800	7480	15300	11100	9040	11400	4800	8000
9	16700	21700	13400	21200	19900	9030	15900	10500	8540	10600	9480	4540
10	12800	21700	13900	21300	21400	15100	7470	11100	7570	11700	6940	5960
11	11800	21700	13600	20400	22000	20300	6400	11900	7110	11300	7190	4680
12	12100	21700	11200	18500	16000	17800	14600	11300	6810	12100	4470	4610
13	14900	16400	10900	12400	5160	5610	15600	10300	6650	11800	4470	4620
14	16200	5900	13100	15700	5740	5200	15400	9650	6550	12200	4640	4370
15	16200	6570	13800	15400	20000	11900	10500	9550	6400	11900	4550	4840
16	16100	17400	14700	8140	22200	12100	8740	9160	7840	11600	7690	4950
17	15900	9550	14400	7070	18000	7960	6290	9060	6010	10000	13900	5430
18	16600	15400	15400	16000	5460	8140	6060	12700	5790	5920	14000	4950
19	16200	15700	14700	11000	4890	7590	5880	8720	5550	9390	13200	4960
20	18800	15300	18100	8630	4770	6550	5730	8690	5420	13100	10800	8900
21	20000	9660	17100	5040	4760	4760	5560	8260	5420	14300	4120	9310
22	18100	9740	16600	4240	4390	13900	9020	8440	5020	14400	4580	9260
23	17700	17400	16200	4230	6370	14200	9920	8390	4990	14500	7360	9220
24	19800	15500	19000	5040	15900	14300	7660	8430	4870	14400	8520	5820
25	20500	13500	19200	4700	16500	14400	9960	8050	4750	13500	7550	4980
26	20500	10500	19500	12000	5350	10000	20000	7740	5270	12900	7440	4960
27	18600	9920	19500	14400	4810	7530	20900	7600	4870	15600	6730	8680
28	18100	9940	19600	14700	4570	4940	21100	7220	4570	15500	4460	12000
29	20300	21300	19000	14500	---	17300	21300	7020	8090	15300	5180	19700
30	20900	30800	18900	4040	---	13300	21200	6810	10700	15100	6000	20800
31	21300	---	18900	3940	---	14000	---	6790	---	7960	4720	---
TOTAL	506200	484910	477200	423130	328740	345130	372310	357580	201500	345300	246730	210410
MEAN	16330	16160	15390	13650	11740	11130	12410	11530	6717	11140	7959	7014
MAX	21300	30800	19700	21400	22200	20400	21300	24400	10700	15600	15100	20800
MIN	10600	5900	10900	3940	4390	4450	5560	6790	4570	4140	4120	4370
AC-FT	1004000	961800	946500	839300	652100	684600	738500	709300	399700	684900	489400	417300

CAL YR 1976 TOTAL 6634760 MEAN 18130 MAX 44400 MIN 5900 AC-FT 13160000
WTR YR 1977 TOTAL 4299140 MEAN 11780 MAX 30800 MIN 3940 AC-FT 8527000

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44.57	46.64	46.12	45.22	43.80	42.76	41.02	42.72	43.37	44.44	44.35	44.10
2	44.66	46.45	45.46	45.19	43.94	43.30	40.95	42.48	43.56	44.48	44.39	44.04
3	44.91	46.17	45.24	45.27	44.00	43.56	40.95	43.51	43.65	44.26	44.43	44.03
4	45.04	46.09	45.12	45.31	44.19	44.02	40.33	44.33	43.58	44.06	44.39	44.08
5	45.04	46.04	45.03	45.25	44.95	43.42	40.45	44.53	43.60	43.90	44.86	44.17
6	45.05	46.08	44.91	45.20	44.51	42.43	40.76	44.35	43.58	43.87	45.05	44.26
7	44.83	46.41	44.99	45.37	44.48	42.13	40.88	44.15	43.81	43.97	44.83	44.31
8	45.01	46.52	44.89	45.18	44.79	42.09	40.99	43.54	44.05	44.24	44.36	44.54
9	45.51	46.54	44.88	45.42	44.98	42.21	41.15	43.39	44.28	44.25	44.47	44.49
10	45.07	46.56	44.79	45.49	45.35	42.42	40.47	43.73	44.20	44.44	44.36	44.53
11	45.01	46.56	44.74	45.41	45.50	43.32	39.96	44.02	44.02	44.42	44.31	44.55
12	45.04	46.55	44.57	45.15	45.30	43.22	40.61	44.23	43.91	44.60	44.17	44.55
13	45.24	46.39	44.43	44.90	43.95	42.30	41.04	44.22	43.86	44.72	44.06	44.54
14	45.51	45.23	44.50	44.24	43.51	41.78	41.26	44.19	43.79	44.81	43.99	44.52
15	45.55	44.88	44.49	44.19	44.18	42.03	40.80	44.14	43.79	44.87	43.97	44.60
16	45.58	45.42	44.55	44.19	44.77	42.10	40.49	44.06	43.74	44.80	44.08	44.62
17	45.64	45.33	44.54	43.82	44.74	41.71	40.15	43.95	43.92	44.67	44.66	44.67
18	45.72	45.42	44.32	44.41	43.67	41.54	40.01	44.20	43.94	44.37	44.92	44.71
19	45.77	45.56	44.96	44.38	43.34	41.39	39.96	44.01	43.97	44.40	45.06	44.73
20	45.90	45.58	45.08	43.21	43.20	41.04	39.94	43.82	44.00	44.76	44.87	44.90
21	46.28	45.23	44.83	43.82	43.08	40.78	39.90	43.71	44.07	44.98	44.50	45.12
22	46.33	45.16	44.77	43.42	42.95	41.35	40.07	43.70	44.07	45.07	44.30	45.26
23	46.23	45.57	44.68	43.23	42.91	41.61	40.25	43.70	44.04	45.12	44.36	45.33
24	46.30	45.72	44.85	43.49	43.53	41.53	40.16	43.71	43.98	45.15	44.46	45.25
25	46.54	45.76	44.96	43.38	43.76	41.52	40.34	43.79	43.94	45.02	44.57	45.25
26	46.62	45.39	45.00	43.47	43.16	41.20	41.71	43.75	43.87	44.94	44.61	45.22
27	46.59	45.26	45.13	43.81	42.89	40.62	42.68	43.60	43.89	45.15	44.52	45.34
28	46.37	45.18	45.20	43.37	42.80	40.33	42.80	43.50	43.84	45.24	44.26	45.40
29	46.39	45.54	45.19	44.15	---	40.08	43.00	43.44	44.08	45.28	44.19	45.94
30	46.55	47.33	45.21	43.88	---	41.53	43.26	43.37	44.38	45.35	44.27	46.37
31	46.55	---	45.24	43.74	---	40.96	---	43.29	---	44.83	44.15	---
MEAN	45.66	45.69	44.92	44.44	44.01	41.97	40.88	43.76	43.90	44.66	44.44	44.78
MAX	46.62	47.33	46.12	45.51	45.50	44.02	43.26	44.53	44.38	45.35	45.06	46.37
MIN	44.57	44.88	44.32	43.21	42.80	40.33	39.90	42.48	43.37	43.87	43.97	44.03

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-50, 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1949 to September 1950, May 1963 to current year.

INSTRUMENTATION.--Temperature recorder since May 23, 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C July 27, 1975; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C Aug. 12-15, minimum, 1.0°C Feb. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)
OCT					
01...	--	10500	--	20.5	14.5
DEC					
01...	--	16400	--	-1.0	7.0
FEB					
01...	--	10600	--	.0	2.0
MAR					
10...	0945	11500	229	8.5	6.5
31...	--	15000	--	7.0	4.5
AUG					
11...	--	8830	--	26.5	21.0

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	14.5	11.5	11.5	8.0	7.0	6.0	6.0	2.0	2.0	5.5	5.5
2	14.5	14.5	11.5	11.5	8.0	8.0	6.0	5.5	2.0	1.5	6.0	6.0
3	14.5	14.0	11.5	11.5	8.0	8.0	5.5	5.0	1.5	1.5	6.0	5.5
4	14.0	14.0	11.5	11.0	8.0	8.0	5.0	5.0	1.5	1.0	5.5	5.5
5	14.0	13.5	11.0	11.0	8.0	7.0	5.0	5.0	2.0	1.5	6.0	5.5
6	13.5	13.0	11.0	11.0	7.0	7.0	5.0	5.0	2.0	2.0	6.0	6.0
7	13.0	13.0	11.0	11.0	7.0	7.0	5.0	5.0	2.0	2.0	6.5	6.5
8	13.0	13.0	11.0	11.0	7.0	6.5	5.0	5.0	3.0	2.0	6.5	6.5
9	13.0	12.0	11.0	10.5	6.5	6.5	5.0	5.0	3.0	3.0	6.5	6.5
10	12.0	12.0	10.5	10.5	6.5	6.5	5.0	5.0	3.5	3.5	6.5	6.5
11	12.0	12.0	10.5	10.5	6.5	6.5	5.0	5.0	3.5	3.5	6.5	6.5
12	12.0	12.0	10.5	10.5	7.0	7.0	5.0	5.0	3.5	3.5	6.5	6.0
13	12.0	12.0	10.5	10.0	7.0	7.0	5.0	5.0	3.5	3.5	6.0	6.0
14	12.0	12.0	10.0	10.0	7.0	7.0	4.5	4.5	4.0	3.5	6.0	6.0
15	12.0	12.0	10.0	10.0	7.0	6.5	4.5	4.5	4.5	4.5	6.0	6.0
16	12.0	12.0	10.0	9.5	6.5	6.5	4.5	4.5	4.5	4.5	6.0	6.0
17	12.0	12.0	9.5	9.0	6.5	6.5	4.5	4.5	4.5	4.5	6.5	6.0
18	12.0	12.0	9.0	8.5	6.5	6.5	4.5	4.5	4.5	4.5	6.5	6.5
19	12.0	12.0	9.0	8.5	6.5	6.5	4.5	4.5	4.5	4.5	7.0	6.5
20	12.0	11.5	9.0	9.0	6.5	6.5	4.5	4.0	5.0	5.0	7.0	7.0
21	11.5	11.5	9.0	9.0	6.5	6.5	4.5	4.0	5.0	5.0	7.0	7.0
22	11.5	11.5	9.0	9.0	6.5	6.5	4.5	4.5	5.0	5.0	7.0	7.0
23	11.5	11.5	9.0	8.5	6.5	6.0	4.0	4.0	5.5	5.0	7.0	7.0
24	11.5	11.5	8.5	8.0	6.0	6.0	4.0	4.0	5.5	5.0	7.0	7.0
25	11.5	11.0	8.0	8.0	6.0	6.0	4.0	3.5	5.5	5.5	7.0	7.0
26	11.0	11.0	8.0	8.0	6.0	6.0	3.5	3.0	5.5	5.5	7.0	7.0
27	11.5	11.0	8.0	8.0	6.0	6.0	3.0	3.0	5.5	5.5	7.0	7.0
28	11.5	11.5	8.0	8.0	6.0	6.0	3.0	3.0	5.5	5.5	---	---
29	11.5	11.5	8.0	7.0	6.0	6.0	2.0	2.0	---	---	7.0	7.0
30	11.5	11.5	7.0	6.5	6.0	6.0	2.0	2.0	---	---	8.0	8.0
31	11.5	11.5	---	---	6.0	6.0	2.0	2.0	---	---	8.0	8.0
MONTH	14.5	11.0	11.5	6.5	8.0	6.0	6.0	2.0	5.5	1.0	8.0	5.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	8.0	11.0	11.0	12.0	11.5	20.0	19.5	20.0	19.0	16.0	15.5
2	8.5	8.0	11.0	10.5	13.0	12.0	19.5	18.5	20.0	19.5	16.0	15.5
3	8.5	8.0	11.5	10.5	13.0	13.0	18.5	17.0	19.5	19.5	16.0	15.5
4	8.0	8.0	11.5	10.5	13.0	13.0	17.0	16.5	20.0	19.5	15.5	15.5
5	10.0	8.0	10.5	10.0	14.0	13.0	16.5	16.5	20.5	20.0	16.0	15.5
6	9.0	8.5	10.0	10.0	15.0	13.5	16.5	16.0	20.5	20.0	16.0	15.5
7	9.5	9.0	10.0	9.5	15.0	14.5	17.0	16.5	20.0	20.0	15.5	15.5
8	9.5	9.5	10.0	9.5	15.0	15.0	16.5	16.5	20.5	20.0	15.5	15.0
9	10.0	9.5	10.0	10.0	15.5	15.0	17.0	16.5	20.5	20.5	16.0	15.0
10	---	---	10.0	10.0	16.5	15.0	17.0	16.5	21.0	20.5	16.0	15.5
11	---	---	11.0	10.0	16.5	16.0	16.5	16.5	21.0	20.5	16.5	16.0
12	---	---	12.0	11.0	16.5	16.5	16.5	16.5	21.5	20.5	16.5	16.0
13	10.5	10.0	13.0	12.0	17.0	16.5	16.5	16.5	21.5	21.0	16.5	16.0
14	10.5	10.0	13.0	12.0	18.5	17.0	17.0	16.5	21.5	21.0	16.0	15.5
15	10.0	10.0	12.0	11.0	18.0	17.0	17.0	16.5	21.5	20.5	15.5	15.5
16	10.0	9.0	11.5	11.0	17.0	17.0	18.0	17.0	21.0	20.5	15.5	15.0
17	---	---	12.0	11.5	18.0	16.5	18.5	18.0	21.0	20.5	15.0	15.0
18	---	---	11.5	11.5	18.0	16.5	18.5	18.0	21.0	20.5	15.0	14.0
19	---	---	11.5	11.5	18.5	17.0	19.0	18.5	21.0	20.5	14.5	14.0
20	---	---	11.5	11.5	18.0	17.0	19.0	18.5	20.5	20.0	14.0	13.5
21	---	---	11.5	11.5	18.5	18.0	19.0	18.5	20.5	20.0	14.0	13.5
22	---	---	11.5	11.5	19.0	18.0	18.5	18.0	20.5	20.0	13.5	13.0
23	---	---	11.5	11.5	19.5	18.5	18.5	18.0	20.5	19.5	13.0	13.0
24	---	---	12.0	11.5	20.0	19.0	19.0	18.5	19.5	19.5	13.0	13.0
25	---	---	13.0	12.0	20.5	19.0	19.5	19.0	19.5	19.0	13.0	13.0
26	12.0	11.5	12.0	12.0	20.5	20.0	19.5	19.5	19.0	19.0	13.0	13.0
27	13.5	12.0	12.0	11.5	21.0	20.0	19.5	19.0	19.0	18.5	13.0	12.0
28	12.0	11.5	11.5	11.5	20.5	20.0	19.0	19.0	18.0	17.0	12.0	11.5
29	11.5	11.0	11.5	11.0	20.0	20.0	19.0	19.0	17.0	16.5	11.5	11.0
30	11.0	11.0	12.0	11.0	20.0	20.0	19.5	19.0	16.5	16.0	11.0	10.5
31	---	---	12.0	11.5	---	---	19.0	19.0	16.0	16.0	---	---
MONTH	13.5	8.0	13.0	9.5	21.0	11.5	20.0	16.0	21.5	16.0	16.5	10.5
YEAR	21.5	1.0										

12322500 KOOTENAI LAKE AT KUSKONOOK, BRITISH COLUMBIA

LOCATION.--Lat 49°17'56", long 116°39'31", on east shore of lake at Kuskonook and at mile 74.5 (119.9 km).

PERIOD OF RECORD.--April 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,735.20 ft (528.889 m) above mean sea level, Geodetic Survey of Canada, datum of Pub. 24-A (1961), which is the same at Porthill as datum of 1929, supplementary adjustment of 1947, and 0.03 ft (0.009 m) higher than datum in use at station Kootenai River at Porthill. Gage heights have been reduced to elevations above datum in use at station Kootenai River at Porthill. Prior to Apr. 25, 1938, nonrecording gage at same site at datum 3.00 ft (0.914 m) higher.

REMARKS.--Elevation is subject to partial regulation by Corra Linn Dam on Kootenay River below outlet. Major inflow is from Kootenai River (see sta 12322000). Diversions for irrigation of about 14,600 acres (5,910 hm²) above Kootenay Lake.

COOPERATION.--This station is maintained by Canada under agreement with the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,762.42 ft (537.186 m) June 9, 1961; minimum daily, 1,737.86 ft (529.700 m) Apr. 5, 6, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 1,745.12 ft (531.913 m) Oct. 26; minimum daily, 1,739.29 ft (530.136 m) Apr. 12.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43.87	45.10	44.70	43.75	43.23	42.40	39.64	41.01	43.01	43.81	43.95	43.83
2	43.86	45.11	44.64	43.72	43.31	42.34	39.59	41.15	43.21	43.89	43.87	43.80
3	43.95	45.07	44.54	43.71	43.38	42.31	39.55	41.36	43.23	43.87	43.88	43.83
4	43.96	45.03	44.42	43.69	43.46	42.32	39.48	41.64	43.15	43.74	43.86	43.90
5	43.99	44.99	44.33	43.65	43.66	42.25	39.37	41.91	43.10	43.63	43.93	43.99
6	44.03	44.94	44.22	43.66	43.79	42.03	39.35	42.12	43.07	43.56	44.01	44.06
7	44.02	44.90	44.09	43.67	43.82	41.81	39.35	42.31	43.20	43.53	44.05	44.07
8	44.02	44.90	44.01	43.65	43.79	41.69	39.36	42.53	43.52	43.54	44.00	44.17
9	44.10	44.96	43.98	43.63	43.78	41.62	39.44	42.73	43.73	43.63	43.96	44.22
10	44.16	44.97	43.83	43.63	43.85	41.57	39.45	42.99	43.69	43.71	43.94	44.27
11	44.21	44.94	43.81	43.64	43.87	41.59	39.37	43.22	43.59	43.77	43.93	44.33
12	44.29	44.93	43.79	43.67	43.72	41.66	39.29	43.41	43.52	43.91	43.88	44.33
13	44.30	44.90	43.70	43.63	43.38	41.63	39.42	43.51	43.48	43.99	43.82	44.32
14	44.38	44.73	43.61	43.57	43.12	41.41	39.60	43.52	43.46	44.09	43.79	44.35
15	44.38	44.54	43.54	43.58	43.05	41.25	39.69	43.50	43.48	44.12	43.76	44.38
16	44.45	44.48	43.51	43.53	43.12	41.18	39.69	43.44	43.53	44.12	43.77	44.40
17	44.53	44.51	43.46	43.39	43.21	41.08	39.61	43.37	43.64	44.08	43.85	44.45
18	44.59	44.47	43.40	43.35	43.14	40.93	39.54	43.38	43.67	44.01	44.02	44.50
19	44.63	44.50	43.45	43.39	42.98	40.82	39.52	43.36	43.73	43.92	44.15	44.51
20	44.72	44.53	43.51	43.36	42.84	40.68	39.52	43.29	43.80	43.97	44.18	44.56
21	44.81	44.59	43.52	43.22	42.74	40.51	39.50	43.23	43.83	44.06	44.13	44.71
22	44.93	44.62	43.49	43.04	42.66	40.41	39.45	43.17	43.79	44.10	44.04	44.80
23	44.99	44.60	43.44	42.86	42.58	40.38	39.42	43.16	43.75	44.14	43.99	44.90
24	45.03	44.67	43.40	42.71	42.60	40.34	39.46	43.25	43.71	44.15	44.09	44.97
25	45.08	44.81	43.42	42.66	42.64	40.28	39.54	43.30	43.65	44.14	44.21	45.00
26	45.12	44.79	43.48	42.67	42.66	40.19	39.73	43.28	43.60	44.14	44.20	44.96
27	45.11	44.67	43.58	42.77	42.56	40.07	40.06	43.19	43.59	44.14	44.12	44.91
28	45.07	44.58	43.64	42.94	42.47	39.89	40.32	43.11	43.58	44.15	43.98	44.85
29	45.04	44.47	43.69	43.15	---	39.74	40.54	43.04	43.67	44.26	43.96	44.89
30	45.03	44.55	43.75	43.26	---	39.75	40.81	42.97	43.75	44.28	43.94	45.00
31	45.05	---	43.78	43.22	---	39.69	---	42.94	---	44.15	43.89	---
MAX	45.12	45.11	44.70	43.75	43.87	42.40	40.81	43.52	43.83	44.28	44.21	45.00
MIN	43.86	44.47	43.40	42.66	42.47	39.69	39.29	41.01	43.01	43.53	43.76	43.80

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

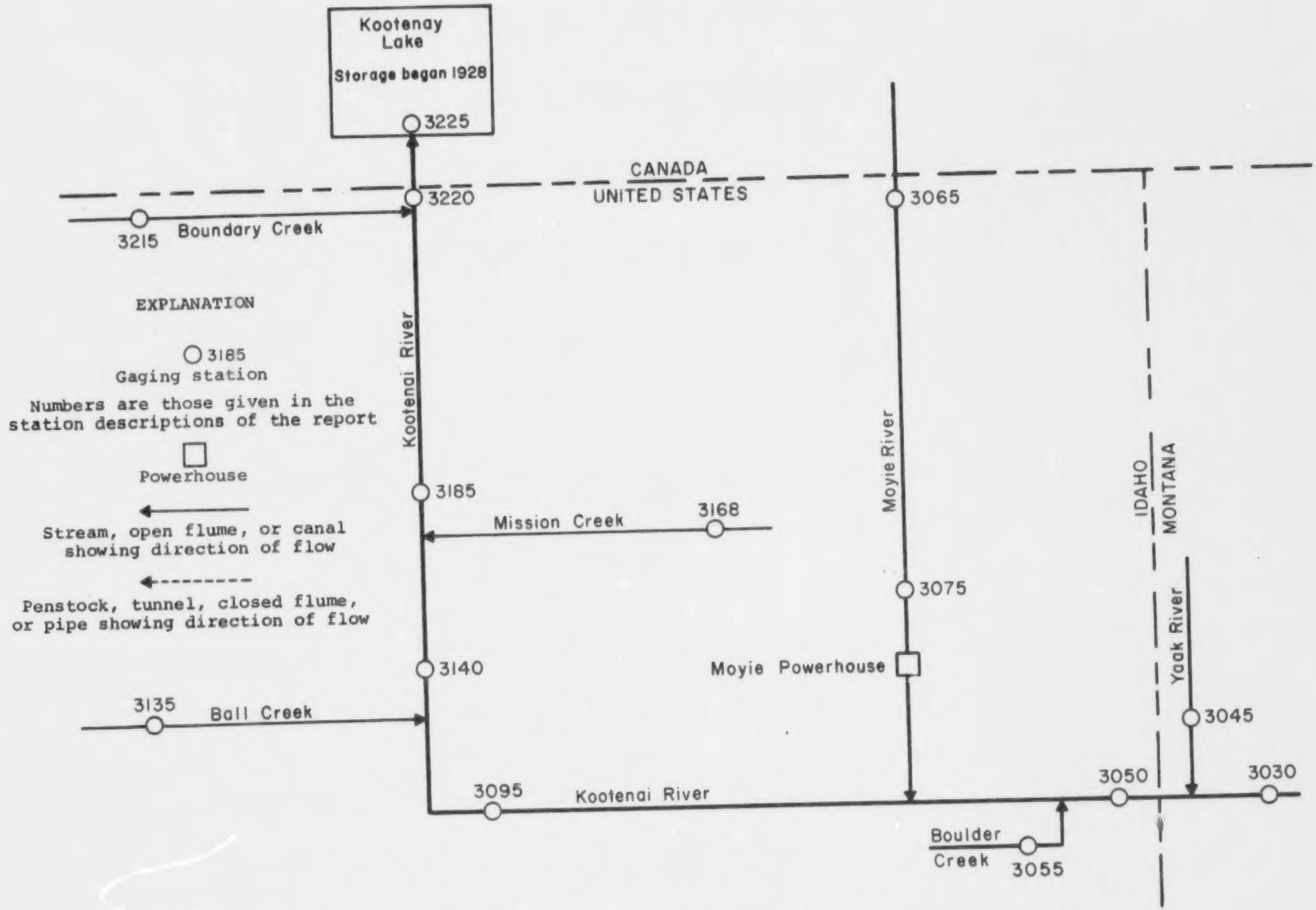
Kootenay Lake
Storage began 1928
3225
CANADA
UNITED STATES
3220
3215
Boundary Creek
3065
EXPLANATION
3185
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Kootenai River
3185
Mission Creek
3168
Moyie River
IDAHO
MONTANA
3075
3140
Moyie Powerhouse
Yaak River
3135
Ball Creek
3045
3095
Kootenai River
3050
3030
Boulder Creek
3055

FIGURE 10.--Gaging stations in Kootenai River basin.

12392000 CLARK FORK AT WHITEHORSE RAPIDS, NEAR CABINET, ID

LOCATION.--Lat 48°05'18", long 116°04'16", in SW¼NW¼ sec.27, T.55 N., R.3 E., Bonner County, Hydrologic Unit 17010213, on right bank 0.8 mi (1.3 km) downstream from Cabinet Gorge Dam at cableway, 2.1 mi (3.4 km) downstream from Blue Creek, 6.1 mi (9.8 km) southeast of Clark Fork, and at mile 149.1 (239.9 km). Discharge computed at Whitehorse Rapids, 2.3 mi (3.7 km) downstream.

DRAINAGE AREA.--22,073 mi² (57,169 km²), based on revised area of 22,067 mi² (57,154 km²) for site 0.4 mi (0.6 km) upstream.

PERIOD OF RECORD.--September 1928 to current year. Prior to October 1952, published as "near Heron, Mont."

REVISED RECORDS.--WSP 1182: 1936. WSP 1736: 1931, 1936(m), 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,060.00 ft (627.888 m) above mean sea level, levels by Washington Water Power Co. See WSP 1934 for history of changes made prior to Sept. 30, 1952. Water-stage recorder at site 0.4 mi (0.6 km) upstream at datum 60.00 ft (18.288 m) lower Oct. 1, 1952, to Sept. 30, 1964, and at present datum Oct. 1, 1964, to May 21, 1973.

REMARKS.--Records good. Flow regulated by Hungry Horse Reservoir and Flathead Lake. Extreme diurnal fluctuation caused by powerplant at Cabinet Gorge Dam. Diversions above station for irrigation of about 354,000 acres (143,000 hm²). Discharge measurements indicate about 800 ft³/s (22.7 m³/s) ground-water inflow between Cabinet Gorge Dam and Whitehorse Rapids. Records given herein represent flow at Whitehorse Rapids, computed by adding 600 ft³/s (17.0 m³/s) to observed flows at the measuring cableway, and are considered comparable to records at former site near Heron, except for minor surface inflow from additional drainage area. To determine flow at Cabinet Gorge Dam, 800 ft³/s (22.7 m³/s) should be deducted from discharges published herein.

AVERAGE DISCHARGE.--49 years, 22,390 ft³/s (634.1 m³/s), 16,220,000 acre-ft/yr (20.0 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153,000 ft³/s (4,333 m³/s) May 29 to June 1, 1948; maximum gage height, 50.97 ft (15.536 m) May 31, 1948, site and datum then in use; minimum observed, 270 ft³/s (7.65 m³/s) Aug. 12, 1952 (discharge measurement), at sites in use since October 1952, during filling of Cabinet Gorge reservoir; minimum daily since reservoir filled, 762 ft³/s (21.6 m³/s) Sept. 2, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 195,000 ft³/s (5,520 m³/s) June 1894 (elevation of floodmark at site about 4 mi or 6.4 km upstream and 0.1 mi or 0.2 km below "near Heron" site, 2,137.1 ft or 651.3.88 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,400 ft³/s (1,003 m³/s) Jan. 10 (gage height, 14.49 ft or 4.417 m); minimum, 900 ft³/s (25.5 m³/s) Sept. 18 (gage height, 4.00 ft or 1.219 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12400	12500	20200	17400	23700	13800	13200	16300	14900	5420	14600	11700
2	10700	12100	24000	11100	18600	17200	6420	14200	18900	5620	13600	10700
3	10900	14700	12300	21900	18200	15600	3990	12900	19400	5130	14100	9940
4	19700	12300	10300	18900	18300	14400	9490	16200	16100	3910	8640	9010
5	9020	12500	6780	19900	9740	7040	4270	16900	13000	6470	7160	10800
6	8820	11500	14000	11300	7510	10700	7350	19200	18400	7600	10500	13900
7	9930	10100	16100	16900	13400	21100	4350	15600	20300	14800	9740	13500
8	12700	15600	12000	9270	14900	17900	4100	12400	18500	12700	12600	12200
9	9760	11900	17300	10200	14500	18700	4110	18200	22300	6400	11000	13900
10	10200	8950	14100	22300	5830	16900	3750	18700	24500	6050	13300	7410
11	10300	10900	13200	15300	4460	10400	4580	24000	21200	11400	9580	3900
12	13800	15000	12800	15100	3990	11600	5860	20300	16700	7460	8610	7310
13	9060	12900	16100	16500	3950	10000	6390	24500	16900	7750	4920	10200
14	15000	13800	17100	15100	7590	22000	6460	22600	17200	11800	5420	6620
15	14000	12600	16600	14100	6720	15300	4530	24500	17200	12500	12700	6420
16	9880	10600	15500	11300	4730	11100	3630	28300	14300	12000	9410	9960
17	10000	8950	14900	15500	6490	11200	3620	23000	14000	7620	8100	4480
18	16600	21300	9740	16600	9150	16400	6670	22300	14900	12400	7150	3350
19	14900	17800	10800	20500	10400	9440	5730	20900	8130	11100	8460	10900
20	11900	17800	20000	20900	12300	7800	4710	21300	13800	10500	7960	8000
21	11500	14700	17600	19400	19500	18700	3760	17400	13900	11400	5130	7940
22	12000	21700	13000	12300	13400	12900	4040	20500	12900	18000	11900	7770
23	13000	18800	15400	6100	11300	12800	3820	17700	11200	5680	8980	12300
24	6760	15100	7610	19800	11900	16800	3980	12200	17800	6650	10400	8020
25	18300	16800	5510	18700	14900	14700	7840	14700	11900	13400	9430	7750
26	15900	15500	13800	21200	9100	8500	7030	21900	5350	9490	9300	8630
27	14100	17600	14800	20300	9600	6360	7600	25200	16600	12000	14700	6930
28	12200	10900	16400	15800	16300	18000	7080	16100	16600	8200	7910	9250
29	13500	14600	16200	17200	---	14400	13200	17100	11400	11300	11900	10700
30	9030	17700	15600	12900	---	16400	13200	13500	6120	12600	8180	12300
31	6400	---	17000	23000	---	19100	---	13900	---	11600	13800	---
TOTAL	372260	427200	450990	508870	322960	437800	184960	582900	464400	298950	309180	275790
MEAN	12010	14240	14550	16420	11530	14120	6165	18800	15480	9644	9974	9193
MAX	19700	21700	24000	23000	23700	22000	13200	28300	24500	18000	14700	13900
MIN	6400	8950	5510	6100	3950	6360	3620	12200	5350	3910	4920	3350
AC-FT	738400	847400	894500	1009000	640600	868400	366900	1156000	921100	593000	613300	547000

CAL YR 1976 TOTAL 10122100 MEAN 27660 MAX 97800 MIN 4460 AC-FT 20080000
WTR YR 1977 TOTAL 4636260 MEAN 12700 MAX 28300 MIN 3350 AC-FT 9196000

12392300 PACK RIVER NEAR COLBURN, ID

LOCATION.--Lat 48°25'12", long 116°30'02", in NW¼SW¼ sec.32, T.59 N., R.1 W., Bonner County, Hydrologic Unit 17010214, on right bank 50 ft (15.2 m) downstream from bridge on U.S. Highway 95, 2.2 mi (3.5 km) northeast of Colburn, 10 mi (16.1 km) north of Sandpoint, and at mile 28.07 (45.2 km).

DRAINAGE AREA.--124 mi² (321 km²). Mean altitude, 4,210 ft (1,283 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,130 ft or 649 m (from topographic map).

REMARKS.--Records excellent except those for January, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--19 years, 329 ft³/s (9.32 m³/s), 36.03 in/yr (915 mm/yr), 238,400 acre-ft/yr (294 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,880 ft³/s (194 m³/s) Jan. 16, 1974 (gage height, 16.38 ft or 4.993 m); minimum, 15 ft³/s (0.425 m³/s) Sept. 2, 3, 1967; minimum gage height, 0.69 ft (0.210 m) Sept. 14, 15, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,310 ft³/s (37.1 m³/s) Apr. 25 (gage height, 7.42 ft or 2.262 m), no peak above base of 1,450 ft³/s (41 m³/s); minimum, 19 ft³/s (0.538 m³/s) Aug. 19-24 (gage height, 0.77 ft or 0.235 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 15 to Jan. 4; stage-discharge relation affected by ice
Nov. 28 to Dec. 6, Dec. 20-22, Dec. 29 to Jan. 16, Jan. 24 to Feb. 2, Feb. 7-9)

0.7	19.0	3.0	256
.8	24.2	4.0	436
1.0	36.0	6.0	896
1.5	74.0	8.0	1,510
2.0	125		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	103	47	23	43	59	71	746	285	68	30	48
2	54	81	47	23	44	59	70	966	342	65	29	43
3	66	69	47	22	45	58	70	351	263	64	28	42
4	59	64	46	22	47	57	81	632	335	62	34	53
5	56	62	46	22	45	57	117	491	419	61	37	134
6	57	60	47	22	44	57	172	417	365	60	31	79
7	57	59	48	22	42	84	249	397	342	59	29	60
8	56	57	50	22	42	128	370	425	557	56	27	53
9	55	56	54	22	42	109	476	457	379	54	27	48
10	54	55	50	23	45	95	386	531	304	51	26	44
11	52	54	50	24	52	84	354	525	271	53	25	42
12	51	52	47	26	54	80	363	397	244	53	25	40
13	51	49	46	28	66	78	432	365	225	51	24	38
14	50	46	49	30	64	73	376	361	211	51	23	37
15	49	51	48	33	56	72	316	344	197	48	23	36
16	49	54	49	38	56	70	312	334	190	44	23	36
17	48	59	47	42	55	68	321	319	177	44	22	48
18	48	81	47	47	56	65	308	340	162	45	21	51
19	48	70	44	81	57	68	276	304	150	45	20	46
20	47	56	42	71	58	65	260	299	140	46	19	51
21	47	53	44	62	64	64	261	346	132	42	19	58
22	47	56	45	55	70	64	277	389	122	40	19	58
23	47	52	47	52	67	66	423	348	113	37	19	56
24	47	55	47	49	63	68	703	367	104	35	35	55
25	51	68	45	48	60	68	974	307	97	35	84	79
26	53	53	48	45	61	67	1040	312	91	42	54	84
27	51	44	67	44	60	69	780	317	85	39	65	74
28	49	44	56	43	59	69	742	268	80	35	67	67
29	51	45	32	43	---	67	727	252	76	33	96	77
30	51	46	24	43	---	66	727	237	72	33	73	81
31	52	---	24	43	---	71	---	235	---	32	56	---
TOTAL	1607	1754	1430	1170	1517	2225	12034	12879	6530	1483	1110	1718
MEAN	51.8	58.5	46.1	37.7	54.2	71.8	401	415	218	47.8	35.8	57.3
MAX	66	103	67	81	70	128	1040	966	557	68	96	134
MIN	47	44	24	22	42	57	70	235	72	32	19	36
CFSM	.42	.47	.37	.30	.44	.58	3.23	3.35	1.76	.39	.29	.46
IN.	.48	.53	.43	.35	.46	.67	3.61	3.86	1.96	.44	.33	.52
AC-FT	3190	3480	2840	2320	3010	4410	23870	25550	12950	2940	2200	3410

CAL YR 1976 TOTAL 105737 MEAN 289 MAX 3130 MIN 24 CFSM 2.33 IN 31.72 AC-FT 209700
WTR YR 1977 TOTAL 45457 MEAN 125 MAX 1040 MIN 19 CFSM 1.01 IN 13.64 AC-FT 90160

12392300 PACK RIVER NEAR COLBURN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
DEC									
29...	1400	42	65	--	-1.0	.5	0	--	--
30...	1000	24	55	--	-1.0	.0	1	--	--
FEB									
23...	1430	66	47	--	8.0	5.0	2	--	--
APR									
22...	0955	258	24	--	16.5	8.0	2	--	--
JUN									
03...	1010	283	22	--	9.0	8.5	60	--	--
JUL									
20...	1530	45	45	--	31.0	22.5	1	--	--
SEP									
08...	1545	53	39	--	16.0	16.0	1	--	--
30...	1200	81	30	7.4	10.0	9.5	10	20	6

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
DEC									
29...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
FEB									
23...	--	--	--	--	--	--	--	--	--
APR									
22...	--	--	--	--	--	--	--	--	--
JUN									
03...	--	--	--	--	--	--	--	--	--
JUL									
20...	--	--	--	--	--	--	--	--	--
SEP									
08...	--	--	--	--	--	--	--	--	--
30...	7.3	.4	1.3	12	.1	.5	17	0	14

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
DEC									
29...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
FEB									
23...	--	--	--	--	--	--	--	--	--
APR									
22...	--	--	--	--	--	--	--	--	--
JUN									
03...	--	--	--	--	--	--	--	--	--
JUL									
20...	--	--	--	--	--	--	--	--	--
SEP									
08...	--	--	--	--	--	--	--	--	--
30...	3.2	.3	.2	9.5	31	.04	6.80	.04	.01

12392500 PEND OREILLE LAKE NEAR HOPE, ID

at 48°16'35", long 116°20'47", in NW¼SE¼NW¼ sec.21, T.57 N., R.1 E., Bonner County, Hydrologic Unit 14, 0.5 mi (0.8 km) southeast of Trestle Creek and 2.5 mi (4.0 km) northwest of Hope.

DRAINAGE AREA.--22,900 mi² (59,310 km²), approximately (natural drainage area above mouth of lake at Sandpoint).

PERIOD OF RECORD.--March 1914 to current year. Published as "at Sandpoint" 1914-22. Records published for both sites September 1921 to September 1922. Published as "at Hope" September 1921 to December 1974.

REVISED RECORDS.--WSP 1122: 1946.

GAGE.--Water-stage recorder. Datum of gage is 2,000.00 ft (609.600 m) above mean sea level; gage readings have been reduced to elevations above mean sea level. Prior to Oct. 1, 1921, nonrecording gage at Sandpoint at datum 42.18 ft (13.856 m) higher. Oct. 1, 1921, to Sept. 30, 1929, nonrecording gage "at Hope" site at datum 45.47 ft (13.859 m) higher than present datum. Oct. 1, 1929, to Sept. 30, 1950, water-stage recorder "at Hope" site at datum 0.20 ft (0.061 m) lower than present datum. Oct. 1, 1950, to Dec. 23, 1974, water-stage recorder "at Hope" site and present datum.

REMARKS.--Records excellent. Midnight readings are published. Regulation at Albeni Falls Dam beginning June 4, 1952. Contents shown is that above elevation 2,044.8 ft (623.26 m) but does not include storage in Pend Oreille River above Albeni Falls Dam.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2,071.62 ft (631.430 m), present datum, June 9, 1948 (contents, 2,462,000 acre-ft or 3,036 hm³); minimum, 2,046.27 ft (623.703 m), present datum, Feb. 17, 1936 (contents, 117,700 acre-ft (145 hm³).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 2,075.88 ft (632.728 m), present datum, June 1894 (contents, 2,905,000 acre-ft or 3,582 hm³).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,062.51 ft (628.653 m) Sept. 8 (contents, 1,562,000 acre-ft or 1,926 hm³); minimum, 2,050.95 ft (625.130 m) Nov. 30 (contents, 514,200 acre-ft or 634 hm³).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,050	432,000
2,055	871,600
2,060	1,327,000
2,066	1,898,000

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.71	52.55	51.26	51.46	52.43	52.31	52.48	54.83	59.36	60.50	62.18	62.24
2	60.54	52.36	51.45	51.41	52.41	52.30	52.38	55.07	59.59	60.49	62.22	62.29
3	60.29	52.22	51.35	51.58	52.34	52.31	52.21	55.10	59.84	60.44	62.23	62.36
4	60.19	52.13	51.29	51.71	52.38	52.33	52.16	55.19	59.98	60.42	62.19	62.41
5	59.81	52.01	51.14	51.85	52.29	52.27	52.11	55.21	60.02	60.48	62.13	62.47
6	59.39	51.87	51.15	51.92	52.18	52.25	52.10	55.40	60.11	60.53	62.13	62.49
7	59.03	51.71	51.24	51.94	52.18	52.54	52.16	55.48	60.17	60.68	62.10	62.49
8	58.81	51.66	51.20	51.78	52.24	52.60	52.21	55.45	60.22	60.80	62.14	62.47
9	58.51	51.56	51.38	51.72	52.27	52.58	52.31	55.60	60.29	60.85	62.14	62.44
10	58.20	51.40	51.52	51.98	52.13	52.47	52.37	55.58	60.38	60.89	62.17	62.35
11	57.91	51.32	51.47	52.06	52.16	52.37	52.40	55.74	60.49	60.97	62.21	62.14
12	57.67	51.41	51.46	52.13	52.09	52.44	52.48	55.79	60.56	61.06	62.19	61.99
13	57.37	51.42	51.50	52.18	52.07	52.42	52.61	55.93	60.60	61.14	62.10	61.92
14	57.15	51.45	51.53	52.21	52.09	52.58	52.72	56.02	60.59	61.28	62.07	61.82
15	57.06	51.43	51.59	52.24	52.09	52.51	52.81	56.15	60.61	61.45	62.26	61.67
16	57.07	51.35	51.62	52.19	52.05	52.40	52.82	56.39	60.59	61.62	62.31	61.60
17	57.07	51.20	51.64	52.26	52.09	52.35	52.87	56.50	60.56	61.73	62.30	61.45
18	56.03	51.30	51.54	52.26	52.14	52.39	52.93	56.61	60.62	61.88	62.29	61.21
19	55.84	51.31	51.51	52.29	52.20	52.38	53.03	56.67	60.54	62.00	62.27	61.21
20	55.56	51.29	51.64	52.32	52.27	52.30	53.09	56.73	60.48	62.13	62.27	61.09
21	55.27	51.24	51.64	52.34	52.45	52.39	53.13	56.71	60.56	62.22	62.18	60.95
22	55.01	51.30	51.59	52.26	52.43	52.35	53.18	56.89	60.59	6[illegible]38	62.28	60.85
23	54.74	51.28	51.57	52.15	52.40	52.34	53.21	57.19	60.61	62.31	62.23	60.81
24	54.35	51.27	51.47	52.22	52.30	52.37	53.28	57.34	60.77	62.26	62.30	60.72
25	54.17	51.27	51.34	52.29	52.40	52.36	53.53	57.53	60.86	62.38	62.25	60.62
26	53.98	51.21	51.43	52.35	52.36	52.25	53.63	57.89	60.73	62.35	62.17	60.51
27	53.71	51.23	51.46	52.41	52.30	52.19	53.80	58.25	60.84	62.33	62.22	60.41
28	53.41	51.09	51.49	52.40	52.35	52.27	53.97	58.53	60.79	62.29	62.12	60.32
29	53.20	51.04	51.47	52.40	---	52.32	54.24	58.77	60.65	62.22	62.14	60.30
30	52.95	51.08	51.45	52.28	---	52.37	54.48	58.96	60.54	62.16	62.06	60.21
31	52.72	---	51.42	52.38	---	52.43	---	59.15	---	62.15	62.19	---
MAX	60.71	52.55	51.64	52.41	52.45	52.60	54.48	59.15	60.86	62.38	62.31	62.49
MIN	52.72	51.04	51.14	51.41	52.05	52.19	52.10	54.83	59.36	60.42	62.06	60.21
(†)	669.2	525.6	555.1	639.2	636.6	643.6	825.2	1248	1377	1528	1532	1347
(‡)	-738.8	-143.6	+29.5	+84.1	-2.6	+7.0	+181.6	+422.8	+129.0	+151.0	+4.0	-185.0

CAL YR 1976............ ‡ -278.1
WTR YR 1977............ ‡ -61.0

† Contents, in thousands of acre-feet at end of month.
‡ Change in contents, in thousands of acre-feet.
NOTE.--Add 2,000 to obtain elevation above mean sea level.

12393000 PRIEST LAKE AT OUTLET, NEAR COOLIN, ID

LOCATION.--Lat 48°29'36", long 116°52'58", in NE¼SW¼ sec.5, T.59 N., R.4 W., Bonner County, Hydrologic Unit 17010215, 0.5 mi (0.8 km) east of outlet, 1.8 mi (2.9 km) northwest of Coolin, and 44 mi (70.8 km) upstream from mouth of Priest River.

DRAINAGE AREA.--572 mi² (1,480 km²).

PERIOD OF RECORD.--June 1911 to September 1913 (fragmentary gage-height records at Coolin, published as part of records for Priest River at outlet of Priest Lake, at Coolin), April 1928 to July 1950 (gage-height record only), August 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,434.64 ft (742.078 m) above mean sea level. June 18, 1911, to Sept. 30, 1913, nonrecording gages at Coolin at different datums. Apr. 21, 1928, to Oct. 18, 1939, nonrecording gage at site 400 ft (122 m) north of lake outlet at present datum.

REMARKS.--Flow from Priest Lake is regulated to hold lake at heights desirable for recreation interests during summer months and storage is released for power use downstream during winter months. Storage began Aug. 9, 1950. Prior to Aug. 9, 1950, some regulation resulted from logging operations in the outlet channel. Figures given herein represent contents above gage height of about -2 ft (-0.61 m). Capacity table is based on area measured from Priest Lake quadrangle (scale 1:250,000) and reconnaissance survey of marginal areas and is only approximate.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.68 ft (2.036 m) June 20, 1974 (contents, 207,500 acre-ft or 256 hm³); minimum, -0.46 ft (-0.140 m) Jan. 5, 6, 1977 (contents, 37,500 acre-ft or 46.53 hm³).

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.25 ft (1.991 m) June 9 (contents, 125,200 acre-ft or 154 hm³); minimum, -0.46 ft (-0.140 m) Jan. 5, 6 (contents, 37,500 acre-ft or 46.2 hm³).

Capacity table (gage height, in feet, and contents, in acre-feet)

-0.2	43,610
0.0	48,000
3.0	119,270
4.0	143,100

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.13	.56	-.07	-.41	-.42	-.40	-.34	1.46	3.10	3.08	3.01	3.09
2	3.14	.50	-.23	-.42	-.41	-.40	-.32	1.66	3.09	3.09	3.01	3.10
3	3.14	.46	-.25	-.43	-.43	-.41	-.34	1.90	3.09	3.08	3.03	3.11
4	3.12	.44	-.27	-.45	-.43	-.41	-.31	2.12	3.13	3.08	3.05	3.15
5	3.07	.40	-.30	-.45	-.43	-.41	-.32	2.30	3.16	3.07	3.05	3.16
6	2.93	.36	-.30	-.43	-.43	-.43	-.30	2.40	3.16	3.07	3.04	3.16
7	2.82	.33	-.28	-.42	-.44	-.34	-.26	2.46	3.19	3.08	3.03	3.15
8	2.72	.30	-.28	-.43	-.44	-.31	-.24	2.52	3.23	3.08	3.03	3.14
9	2.63	.27	-.29	-.44	-.45	-.30	-.16	2.53	3.25	3.07	3.02	3.13
10	2.54	.24	-.30	-.44	-.41	-.29	-.11	2.56	3.20	3.07	3.02	3.13
11	2.45	.21	-.31	-.43	-.42	-.29	-.06	2.60	3.16	3.07	3.01	3.12
12	2.36	.18	-.33	-.39	-.41	-.30	-.03	2.70	3.13	3.07	3.00	3.11
13	2.20	.16	-.34	-.40	-.40	-.28	.04	2.66	3.08	3.08	3.03	3.10
14	2.04	.13	-.34	-.40	-.40	-.29	.08	2.72	3.04	3.08	3.02	3.08
15	1.89	.11	-.34	-.40	-.41	-.28	.12	2.72	3.04	3.07	2.99	3.07
16	1.74	.12	-.35	-.39	-.40	-.30	.17	2.69	3.02	3.06	2.99	3.09
17	1.60	.11	-.36	-.37	-.40	-.30	.20	2.66	3.00	3.02	2.98	3.12
18	1.48	.08	-.37	-.36	-.40	-.31	.22	2.70	3.02	3.02	2.97	3.11
19	1.37	.07	-.37	-.35	-.40	-.31	.24	2.68	3.06	3.05	2.96	3.10
20	1.26	.04	-.38	-.33	-.41	-.30	.25	2.66	3.09	3.05	2.95	3.11
21	1.18	.03	-.39	-.36	-.40	-.32	.26	2.68	3.13	3.04	2.94	3.11
22	1.09	.01	-.39	-.35	-.39	-.32	.28	2.74	3.15	3.03	2.93	3.09
23	1.00	.00	-.39	-.36	-.39	-.31	.30	2.78	3.17	3.03	2.90	3.08
24	.96	.03	-.40	-.36	-.40	-.31	.33	2.82	3.17	3.04	2.98	3.14
25	.90	.03	-.39	-.38	-.36	-.32	.36	2.90	3.16	3.06	3.00	3.15
26	.83	.00	-.35	-.38	-.38	-.31	.62	2.96	3.16	3.07	3.05	3.14
27	.76	-.02	-.35	-.39	-.36	-.30	.78	3.03	3.17	3.07	3.07	3.14
28	.71	-.03	-.36	-.39	-.37	-.31	.96	3.09	3.15	3.01	3.07	3.14
29	.66	-.05	-.37	-.39	---	-.32	1.14	3.12	3.15	3.02	3.08	3.14
30	.62	-.06	-.38	-.41	---	-.33	1.34	3.11	3.15	3.02	3.09	3.11
31	.58	---	-.39	-.41	---	-.33	---	3.10	---	3.01	3.09	---
MAX	3.14	.56	-.07	-.33	-.36	-.28	1.34	3.12	3.25	3.09	3.09	3.16
MIN	.58	-.06	-.40	-.45	-.45	-.43	-.34	1.46	3.00	3.01	2.90	3.07
(†)	61970	46900	39140	38680	39620	40560	79900	121600	122800	119500	121400	121900
(‡)	-60430	-15070	-7760	-460	+940	+940	+39340	+41700	+1200	-3300	+1900	+500

CAL YR 1976............ ‡ -25160
WTR YR 1977............ ‡ -500

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

12394000 PRIEST RIVER NEAR COOLIN, ID

LOCATION.--Lat 48°27'07", long 116°53'58", in SW¼NE¼ sec.19, T.59 N., R.4 W., Bonner County, Hydrologic Unit 17010215, in Dickensheet campground, on left bank 190 ft (57.9 m) downstream from Dickensheet Bridge, 2.5 mi (4 km) downstream from Binarch Creek, 3 mi (4.8 km) southwest of Coolin, 5.2 mi (8.4 km) downstream from outlet of Priest Lake, and at mile 38.8 (62.4 km).

DRAINAGE AREA.--611 mi^2 (1,582 km^2).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,338.24 ft (712.70 m) above mean sea level. Prior to Feb. 23, 1949, nonrecording gage at same site and datum.

REMARKS.--Records excellent. No diversion above station. Flow partly regulated by Priest Lake (see sta 12393000).

AVERAGE DISCHARGE.--29 years, 1,316 ft^3/s (37.3 m^3/s), 29.25 in/yr (743 mm/yr), 953,400 acre-ft/yr (1,176 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,900 ft^3/s (252 m^3/s) June 18, 1974 (gage height, 8.44 ft or 2.573 m); minimum observed, 26 ft^3/s (0.736 m^3/s) Sept. 25, 1958 (gage height, 1.16 ft or 0.354 m), but may have been less Sept. 11, 1953, Sept. 24, 1958, when stage was below intake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1913, 8.44 ft (2.573 m) on June 18, 1974 (discharge, 8,900 ft^3/s or 252 m^3/s). Flood of May 29, 1948, reached a stage of 8.40 ft or 2.560 m (discharge, 8,670 ft^3/s or 246 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,470 ft^3/s (70.0 m^3/s) Oct. 14 (gage height, 4.91 ft or 1.497 m); minimum, 118 ft^3/s (3.34 m^3/s) Au.g 22-25 (gage height, 1.93 ft or 0.588 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 30 to Feb. 2)

1.6	76	4.0	1,400
2.0	152	5.0	2,690
2.5	315	6.0	4,190
3.0	570	7.0	5,890
3.5	930		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	850	360	251	232	276	288	653	1300	371	172	120
2	233	819	342	244	234	258	288	722	1290	341	159	120
3	374	789	337	240	233	258	288	722	1300	351	156	132
4	589	751	324	236	233	255	288	882	1320	345	165	152
5	1120	722	311	240	233	255	288	999	1360	325	162	159
6	1870	687	303	240	233	255	295	1130	1370	249	159	207
7	1760	660	311	233	233	262	307	1490	1380	251	157	212
8	1650	634	320	229	226	329	333	1540	1540	251	153	210
9	1550	614	316	222	226	342	369	1570	2070	245	151	208
10	1450	589	311	219	233	337	401	1620	2050	241	150	206
11	1360	564	303	215	244	333	435	1670	2000	247	147	204
12	1670	540	295	236	255	329	466	1720	1960	245	147	201
13	2330	517	291	244	258	329	505	1730	1910	245	147	199
14	2350	494	284	240	258	329	546	1730	1720	248	149	199
15	2290	483	284	240	255	324	576	1720	1260	243	145	197
16	2140	483	280	240	255	320	602	1720	1240	322	140	196
17	1990	472	276	244	251	316	627	1710	1050	306	140	207
18	1850	461	273	265	251	307	647	1720	514	213	138	230
19	1720	450	269	273	255	307	660	1710	220	215	125	249
20	1600	440	262	273	251	303	673	1570	206	215	122	248
21	1490	425	258	269	255	299	687	1190	208	213	121	251
22	1380	421	255	269	262	299	687	931	223	210	119	253
23	1300	406	255	269	262	303	694	965	290	209	118	247
24	1230	411	251	265	262	311	737	874	360	187	122	249
25	1190	430	258	262	262	311	766	500	394	165	120	266
26	1130	416	276	258	276	307	595	546	393	182	120	267
27	1070	401	288	255	280	303	722	583	397	196	121	265
28	1010	387	284	255	280	303	708	811	391	194	121	266
29	957	378	276	236	---	299	435	1150	387	182	121	327
30	907	369	265	230	---	295	540	1320	385	187	120	543
31	874	---	262	230	---	291	---	1310	---	186	120	---
TOTAL	42667	16063	8980	7622	6988	9345	15453	38508	30488	7579	4307	6790
MEAN	1376	535	290	246	250	301	515	1242	1016	244	139	226
MAX	2350	850	360	273	280	342	766	1730	2070	371	172	543
MIN	233	369	251	215	226	255	288	500	206	165	118	120
AC-FT	84630	31860	17810	15120	13860	18540	30650	76380	60470	15030	8540	13470

CAL YR 1976 TOTAL 469745 MEAN 1283 MAX 5600 MIN 205 AC-FT 931700
WTR YR 1977 TOTAL 194790 MEAN 534 MAX 2350 MIN 118 AC-FT 386400

12395000 PRIEST RIVER NEAR PRIEST RIVER, ID

LOCATION.--Lat 48°12'31", long 116°54'49", in NW¼SW¼NW¼ sec.12, T.56 N., R.5 W., Bonner County, Hydrologic Unit 17010215, on right bank 500 ft (152 m) downstream from Saddler Creek, 0.4 mi (0.6 km) downstream from Lower West Branch, 2.7 mi (4.3 km) north of Priest River, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--902 mi^2 (2,336 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to April 1905, November 1910 to April 1911, May to December 1923, February 1929 to current year. Prior to October 1930, published as "at Priest River."

REVISED RECORDS.--WSP 572: 1903-5.

GAGE.--Water-stage recorder. Altitude of gage is 2,090 ft or 637 m (from river-profile map). Prior to May 15, 1929, and Sept. 18, 1929, to Apr. 28, 1930, nonrecording gages at site 3 mi (4.8 km) downstream at altitude about 40 ft (12 m) lower. June 4 to Sept. 17, 1929, and Apr. 29 to Sept. 11, 1930, nonrecording gages at or near present site at present datum.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. No diversion above station. Some regulation on tributary and, since Aug. 9, 1950, flow partly regulated by Priest Lake (see sta 12393000).

AVERAGE DISCHARGE.--49 years (1904, 1930-77), 1,673 ft^3/s (47.4 m^3/s), 25.19 in/yr (640 mm/yr), 1,212,000 acre-ft/yr (1,494 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft^3/s (297 m^3/s) May 29, 30, 1948; maximum gage height, 8.97 ft (2.73 m) May 29, 1948; minimum discharge, 165 ft^3/s (4.67 m^3/s) Sept. 26, 1958; minimum gage height, 0.44 ft (0.134 m) Sept. 16, 17, 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,430 ft^3/s (68.8 m^3/s) Oct. 15 (gage height, 3.38 ft or 1.030 m); minimum, 219 ft^3/s (6.20 m^3/s) Aug. 21-24 (gage height, 0.56 ft or 0.171 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 25 to July 15; stage-discharge relation affected by ice Jan. 3-21)

0.6	205	3.0	1,910
.8	280	4.0	3,000
1.0	375	5.0	4,260
1.5	680	6.0	5,640
2.0	1,040		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	338	980	490	414	330	460	520	962	1570	573	292	239
2	347	950	478	387	340	466	508	1120	1560	543	272	237
3	346	920	478	351	345	460	508	1150	1560	527	264	240
4	555	890	472	351	345	454	514	1240	1600	532	278	268
5	703	870	460	351	340	454	539	1340	1650	531	280	295
6	1680	850	448	350	340	460	570	1410	1630	482	274	303
7	1680	830	448	345	335	532	602	1700	1630	424	267	334
8	1740	810	466	340	330	798	654	1850	1650	419	263	333
9	1690	790	472	330	335	841	714	1870	2070	417	258	325
10	1620	770	466	320	340	735	728	1920	2230	408	255	321
11	1530	750	454	310	350	647	728	1970	2180	406	252	319
12	1430	730	448	325	365	615	749	2020	2160	412	251	315
13	2150	710	448	340	375	595	798	2030	2120	410	248	310
14	2370	690	442	350	385	576	863	2020	2060	413	246	307
15	2370	680	436	350	390	570	870	2000	1610	410	247	303
16	2250	670	431	350	400	557	877	1990	1480	399	243	303
17	2100	650	431	350	405	551	899	2000	1450	519	239	329
18	1970	640	431	360	410	532	906	2030	1010	405	236	336
19	1850	602	419	380	410	532	921	2010	631	342	232	374
20	1740	583	403	390	415	520	924	1970	408	345	225	394
21	1650	557	403	390	420	520	928	1660	398	340	221	402
22	1550	570	408	390	425	514	935	1370	395	336	221	395
23	1450	551	408	390	430	539	943	1280	434	329	220	388
24	1370	557	397	385	430	563	996	1330	508	323	249	391
25	1340	608	408	380	448	576	1100	999	604	307	267	421
26	1280	570	436	380	454	570	1040	876	601	295	254	429
27	1210	532	472	380	454	557	1040	930	598	310	261	412
28	1140	526	460	380	454	539	1140	967	603	314	256	406
29	1090	520	442	370	---	526	936	1270	589	303	266	420
30	1040	508	436	350	---	520	860	1590	578	294	252	553
31	1000	---	425	335	---	532	---	1580	---	295	244	---
TOTAL	44829	20864	13716	11174	10800	17331	24310	48454	37567	12363	7833	10402
MEAN	1446	695	442	360	386	559	810	1563	1252	399	253	347
MAX	2370	980	490	414	454	841	1140	2030	2230	573	292	553
MIN	338	508	397	310	330	454	508	876	395	294	220	237
AC-FT	88920	41380	27210	22160	21420	34380	48220	96110	74510	24520	15540	20630

CAL YR 1976 TOTAL 599876 MEAN 1639 MAX 6650 MIN 336 AC-FT 1190000
WTR YR 1977 TOTAL 259643 MEAN 711 MAX 2370 MIN 220 AC-FT 515000

NOTE.--No gage-height record Jan. 21 to Feb. 24.

12395000 PRIEST RIVER NEAR PRIEST RIVER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
18...	1230	644	66	--	7.5	5.5	0	--	--
JAN									
06...	1300	351	84	--	-4.0	.5	0	--	--
FEB									
25...	1030	440	77	--	2.0	4.0	2	--	--
APR									
19...	1420	947	57	--	7.0	8.0	1	--	--
JUN									
01...	1400	1550	53	--	25.0	15.0	1	--	--
JUL									
28...	1425	311	94	--	26.0	21.0	0	--	--
SEP									
07...	1310	336	82	--	25.0	17.0	2	--	--
30...	1000	430	87	7.6	9.5	9.5	10	39	3

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV									
18...	--	--	--	--	--	--	--	--	--
JAN									
06...	--	--	--	--	--	--	--	--	--
FEB									
25...	--	--	--	--	--	--	--	--	--
APR									
19...	--	--	--	--	--	--	--	--	--
JUN									
01...	--	--	--	--	--	--	--	--	--
JUL									
28...	--	--	--	--	--	--	--	--	--
SEP									
07...	--	--	--	--	--	--	--	--	--
30...	12	2.2	2.0	10	.1	.8	44	0	36

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV									
18...	--	--	--	--	--	--	--	--	--
JAN									
06...	--	--	--	--	--	--	--	--	--
FEB									
25...	--	--	--	--	--	--	--	--	--
APR									
19...	--	--	--	--	--	--	--	--	--
JUN									
01...	--	--	--	--	--	--	--	--	--
JUL									
28...	--	--	--	--	--	--	--	--	--
SEP									
07...	--	--	--	--	--	--	--	--	--
30...	2.2	.4	.1	12	54	.07	62.7	.03	.02

12395500 PEND OREILLE RIVER AT NEWPORT, WA

LOCATION.--Lat 48°10'56", long 117°02'00", in SE¼SW¼ sec.24, T.56 N., R.6 W. (Boise meridian), Bonner County, Hydrologic Unit 17010216, on left bank at Newport, 0.2 mi (0.3 km) upstream from bridge on U.S. Highway 2, 0.2 mi (0.3 km) east of Idaho-Washington State line, 1.6 mi (2.6 km) downstream from Albeni Falls Dam, and at mile 88.5 (142.4 km).

DRAINAGE AREA.--24,200 mi² (62,700 km²), approximately.

PERIOD OF RECORD.--June 1903 to September 1941, October 1952 to current year. Prior to October 1921, published as Clark Fork at Newport, Wash., October 1921 to September 1937, as Clark Fork at Priest River, Idaho, and October 1937 to September 1941, as Pend Oreille River at Priest River, Idaho.

REVISED RECORDS.--WSP 532: 1903-11.

GAGE.--Water-stage recorder. Datum of gage is 1,999.7 ft (609.509 m) above mean sea level. Prior to Sept. 22, 1928, nonrecording gages at Priest River, Newport, or Metaline Falls at various datums (see description, WSP 532, p. 92). Sept. 22, 1928, to Sept. 30, 1935, at datum 2,040.14 ft above mean sea level, and Oct. 1, 1935, to Sept. 30, 1941, at datum 2,000 ft (609.6 m) above mean sea level, water-stage recorder at Priest River. Since December 1952, auxiliary water-stage recorder 2.74 mi (4.4 km) downstream from base gage.

REMARKS.--Records excellent. Flow regulated at Albeni Falls Dam and affected by storage in Pend Oreille Lake (see sta 12392500), Flathead Lake, Hungry Horse Reservoir, and several smaller reservoirs. Diversions above station for irrigation of about 354,000 acres (143,000 hm²).

AVERAGE DISCHARGE.--63 years (1904-41, 1953-77), 26,000 ft³/s (736 m³/s), 18,840 acre-ft/yr (23.2 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft³/s (3,850 m³/s) June 15, 1913, June 21, 1933, June 12, 1972; minimum, 1,280 ft³/s (36 m³/s) Sept. 1, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 64.0 ft (19.51 m) in June 1894, present site and datum, from water-surface profiles (discharge, about 200,000 ft³/s or 5,660 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,500 ft³/s (864 m³/s) Oct. 6; maximum gage height, 36.40 ft (11.095 m) Oct. 7; minimum discharge, 2,770 ft³/s (78.4 m³/s) Sept. 15; minimum gage height, 30.28 ft (9.229 m) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21700	21500	14400	16900	21000	16500	14200	4330	7930	7350	12100	8400
2	21300	21200	16700	15600	21400	16700	13400	10600	7920	7420	11500	8480
3	21500	20600	16900	13600	20000	15700	13100	16000	9990	6320	12200	8530
4	24300	19200	15100	13600	16600	14800	11600	16100	14300	4350	12100	8540
5	29200	18800	14300	15200	15300	10400	8130	16200	14200	4330	11600	8730
6	29900	19000	15000	17600	13500	10800	5450	16200	17000	4940	10800	12300
7	27600	19200	14200	18600	13600	13800	4070	16500	20200	6440	10800	14000
8	26500	19400	13700	16300	13600	17800	3520	16400	21800	7390	11000	14100
9	26500	17900	13500	11800	13300	21900	3140	17000	22100	4350	10800	14100
10	26300	16500	14800	11600	9590	22300	4300	20900	22200	4760	10300	14100
11	26500	14200	15600	13600	7730	15500	4640	22600	19300	6330	9660	14100
12	26500	13400	15300	15500	6920	10900	4300	22400	17700	4450	8990	14100
13	26600	13400	15800	14500	6760	11000	4050	21700	19400	4390	8100	14100
14	26900	13700	15800	14100	6760	16600	3930	21500	19900	4390	5740	14100
15	26800	14700	15900	14200	7050	21000	4470	21600	18100	4370	4050	14000
16	26700	16200	15600	14100	7040	17700	4230	21500	17500	4340	6700	14100
17	27200	17500	14800	15700	6800	14500	4230	21500	16400	4290	8490	14200
18	26500	18100	13800	18300	7070	14100	4260	21600	14100	4210	8280	14100
19	27000	18700	13700	19700	7380	13400	3980	21800	14500	4430	8250	14100
20	26800	18400	15900	19700	8940	13200	4300	21700	17300	4480	8150	14100
21	26700	18600	17800	19500	12900	14400	4050	21600	11300	7680	8290	14100
22	26800	20300	17800	15500	16100	16600	4090	14800	11100	9600	8400	14200
23	26900	21100	16200	14200	15400	16000	3850	8030	10500	9820	8930	14200
24	27100	20700	14700	15300	14400	15400	4160	7850	10000	9630	9520	14300
25	27300	18400	13400	16500	13600	15500	4210	7850	10800	9700	11300	14400
26	27200	18400	13500	19300	13200	13500	4210	7770	10900	11200	13100	14200
27	27300	18500	15300	19300	13500	13300	4260	7770	12000	11900	13200	14200
28	27100	18700	16800	19400	15500	13400	4260	7740	16400	12100	14300	14500
29	24300	17200	17200	18200	---	14300	4420	7790	20500	13100	12300	14300
30	21400	14300	17900	18100	---	15100	4400	7760	11400	14200	10900	17300
31	21700	---	17700	19100	---	15500	---	7700	---	13900	9490	---
TOTAL	806300	537800	479100	504600	344940	471600	165210	474990	456740	226160	309340	397980
MEAN	26010	17930	15450	16280	12320	15210	5507	15320	15220	7295	9979	13270
MAX	29900	21500	17900	19700	21400	22300	14200	22600	22200	14200	14300	17300
MIN	21300	13400	13400	11600	6760	10400	3140	4330	7920	4210	4050	8400
AC-FT	1599000	1067000	950300	1001000	684200	935400	327700	942100	905900	448600	613600	789400

CAL YR 1976 TOTAL 11423940 MEAN 31210 MAX 96900 MIN 9540 AC-FT 22660000
WTR YR 1977 TOTAL 5174760 MEAN 14180 MAX 29900 MIN 3140 AC-FT 10260000

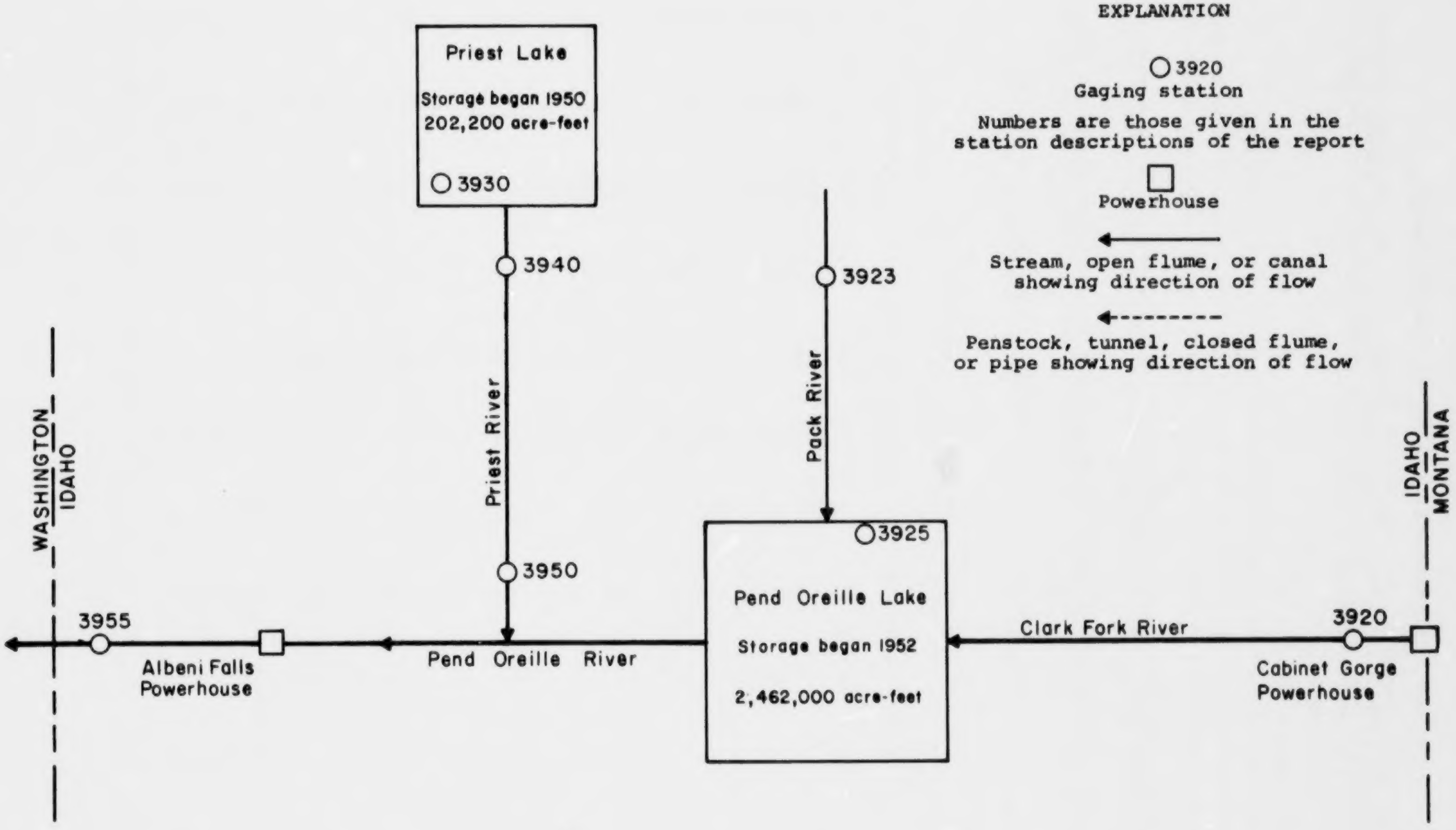
EXPLANATION
3920
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Priest Lake
Storage began 1950
202,200 acre-feet
3930
3940
Priest River
3950
3923
Pack River
3925
Pend Oreille Lake
Storage began 1952
2,462,000 acre-feet
WASHINGTON
IDAHO
3955
Albeni Falls Powerhouse
Pend Oreille River
Clark Fork River
3920
Cabinet Gorge Powerhouse
IDAHO
MONTANA

FIGURE 11.--Gaging stations in Pend Oreille River basin.

12411000 COEUR D'ALENE RIVER ABOVE SHOSHONE CREEK, NEAR PRICHARD, ID

LOCATION.--Lat 47°42'30", long 115°58'35", in NE¼SW¼ sec.5, T.50 N., R.4 E., Shoshone County, Hydrologic Unit 17010301, in Coeur d'Alene National Forest, on left bank at Shoshone Creek ranger station, 0.1 mi (0.2 km) downstream from Uranus Creek, 0.5 mi (0.8 km) upstream from Shoshone Creek, 3.5 mi (5.6 km) north of Prichard, and 200.0 mi (322 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--335 mi^2 (868 km^2).

PERIOD OF RECORD.--December 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,485 ft or 757 m (from river-profile map).

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--26 years (1951-77), 733 ft^3/s (20.8 m^3/s), 29.72 in/yr (755 mm/yr), 531,100 acre-ft/yr (655 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s (623 m^3/s) Jan. 15, 1974 (gage height, 11.60 ft or 3.536 m); minimum discharge, 34 ft^3/s (0.96 m^3/s) Dec. 26, 1952 (gage height, 0.69 ft or 0.210 m); minimum gage height, 0.58 ft (0.177 m) Sept. 12-16, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft^3/s (54.7 m^3/s) Apr. 26 (gage height, 3.39 ft or 1.033 m), no peak above base of 3,600 ft^3/s (102 m^3/s); minimum daily, 41 ft^3/s (1.16 m^3/s) Jan. 6 (ice effect); minimum gage height, 0.59 ft (0.180 m) Aug. 22-25.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 22, Nov. 28 to Dec. 10, Dec. 19 to Mar. 6)

0.6	68	2.0	670
.8	117	2.5	1,040
1.0	177	3.0	1,500
1.5	385	4.0	2,680

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	135	85	64	78	180	269	913	272	122	85	83
2	109	138	82	50	74	168	265	936	270	118	82	76
3	120	114	81	45	74	160	261	911	259	116	80	78
4	109	106	82	43	75	155	300	845	276	114	80	93
5	101	101	85	42	76	150	452	740	288	112	82	129
6	101	98	90	41	73	150	717	661	258	110	82	115
7	98	96	100	42	72	192	977	604	249	108	81	89
8	96	96	120	44	75	522	1300	569	252	106	79	79
9	96	96	135	49	79	516	1670	537	245	105	79	74
10	98	93	135	58	85	413	1340	539	229	106	79	70
11	101	93	116	70	98	332	1070	550	221	106	77	68
12	98	88	98	74	110	294	955	511	214	103	77	68
13	96	86	98	77	125	274	967	477	211	101	77	68
14	90	98	97	80	137	250	1000	451	205	104	72	68
15	93	96	90	82	140	234	915	427	200	99	72	68
16	90	104	86	86	145	215	938	404	195	95	72	71
17	90	104	85	93	150	205	1030	415	190	93	72	99
18	90	120	75	105	155	192	970	423	182	108	72	98
19	90	112	70	140	160	194	862	382	175	111	72	82
20	90	98	62	170	175	174	761	362	170	101	72	81
21	90	88	58	155	195	178	694	353	168	96	72	94
22	90	88	72	135	230	168	658	360	165	92	72	107
23	93	93	80	125	260	180	771	344	158	88	70	95
24	90	104	86	115	245	195	1230	343	150	85	70	89
25	106	213	94	105	215	205	1770	322	145	106	77	104
26	117	213	102	95	200	218	1850	317	140	134	90	109
27	109	175	120	91	190	245	1490	318	135	117	94	97
28	104	140	150	87	185	232	1180	310	130	104	100	91
29	98	115	130	84	---	225	1020	310	128	96	103	114
30	96	97	98	82	---	219	952	292	125	91	97	117
31	101	---	80	80	---	244	---	281	---	67	91	---
TOTAL	3048	3398	2942	2604	3876	7279	28634	15207	6005	3234	2480	2674
MEAN	98.3	113	94.9	84.2	138	235	954	491	200	104	80.0	89.1
MAX	120	213	150	170	260	522	1850	936	288	134	103	129
MIN	90	86	58	41	72	150	261	281	125	85	70	68
CFSM	.29	.34	.28	.25	.41	.70	2.85	1.47	.60	.31	.24	.27
IN.	.34	.38	.33	.29	.43	.81	3.18	1.69	.67	.36	.28	.30
AC-FT	6050	6740	5840	5170	7690	14440	56800	30160	11910	6410	4920	5300

CAL YR 1976	TOTAL	218158	MEAN 596	MAX 5500	MIN 58	CFSM 1.78	IN 24.23	AC-FT	432700
WTR YR 1977	TOTAL	81386	MEAN 223	MAX 1850	MIN 41	CFSM .67	IN 9.04	AC-FT	161400

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID

LOCATION.--Lat 47°34'20", long 116°15'10", in NW¼NE¼ sec.30, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010301, on right bank 800 ft (244 m) upstream from highway bridge, 0.2 mi (0.3 km) northwest of Enaville Post Office, 1.1 mi (1.8 km) upstream from South Fork, 3.5 mi (5.6 km) downstream from North Fork, and 168.9 mi (271.8 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--895 mi² (2,320 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to April 1913 (fragmentary), October 1939 to current year. Published as North Fork of Coeur d'Alene River at Enaville 1911-13.

REVISED RECORDS.--WSP 1396: 1945.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft (640.080 m) above mean sea level. Mar. 3, 1911, to Apr. 12, 1913, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum. Oct. 18 to Dec. 22, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. No appreciable regulation or diversion above station.

AVERAGE DISCHARGE.--38 years (1939-77), 1,947 ft³/s (55.1 m³/s), 29.54 in/yr (750.0 mm/yr), 1,411,000 acre-ft/yr (1,740 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,000 ft³/s (1,728 m³/s) Jan. 16, 1974 (gage height, 81.32 ft or 24.786 m); minimum, 104 ft³/s (2.94 m³/s) Dec. 26, 1952 (gage height, 60.10 ft or 18.318 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1933 reached a stage of 79.47 ft (24.2 m) and that in April 1938 a stage of 78.16 ft (23.823 m), from local information concerning high-water marks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,670 ft³/s (132 m³/s) Apr. 9 (gage height 65.95 ft or 20.102 m), no peak above base of 8,000 ft³/s (227 m³/s); minimum, 107 ft³/s (3.03 m³/s) Jan. 2 (gage height, 61.98 ft or 18.892 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 28 to Dec. 3, Jan. 3-10)

61.9	75	63.2	980
62.1	160	64.0	1,850
62.3	260	65.0	3,200
62.6	465	66.0	4,750

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	340	230	169	227	464	747	2250	899	376	238	233
2	264	340	220	124	232	445	746	2330	899	362	227	216
3	291	290	225	117	218	425	723	2380	872	355	222	222
4	282	260	227	112	200	404	759	2260	899	355	211	250
5	263	250	232	110	200	392	991	2010	926	362	216	296
6	254	245	237	110	197	394	1590	1770	872	348	211	315
7	249	240	247	112	195	441	2480	1610	854	335	206	272
8	244	235	284	116	199	1010	3550	1470	863	328	202	238
9	243	230	348	130	207	1420	4480	1400	845	322	197	216
10	243	230	345	150	222	1280	3840	1420	790	322	188	206
11	257	230	304	174	250	1020	3030	1530	754	309	188	197
12	255	225	273	194	281	892	2600	1460	727	303	183	192
13	246	220	252	196	325	818	2560	1380	701	296	178	183
14	240	200	247	205	370	741	2650	1310	674	290	178	178
15	236	200	243	210	376	677	2450	1250	648	284	174	176
16	232	235	235	212	386	622	2370	1190	622	272	174	178
17	231	246	230	236	396	586	2540	1200	597	267	169	221
18	227	271	219	283	401	552	2450	1220	572	303	164	244
19	227	273	214	424	410	539	2210	1150	549	315	164	231
20	225	256	182	435	419	517	1960	1090	541	296	160	224
21	225	238	142	387	477	486	1770	1060	526	284	156	271
22	228	225	187	346	633	475	1650	1090	511	272	156	289
23	230	228	225	315	693	494	1790	1060	488	261	156	270
24	225	239	222	293	629	538	2630	1060	473	250	174	258
25	290	472	227	270	574	568	3880	1010	450	296	202	269
26	280	533	222	249	531	599	4270	991	435	355	227	299
27	270	390	333	248	489	719	3690	1010	427	335	261	281
28	260	280	406	225	461	766	2960	981	405	303	261	264
29	245	265	345	222	---	729	2530	991	398	284	272	286
30	235	250	254	217	---	699	2340	944	383	267	272	314
31	270	---	217	207	---	709	---	917	---	250	255	---
TOTAL	7710	8136	7774	6798	10198	20421	72236	42794	19600	9557	6242	7291
MEAN	249	271	251	219	364	659	2408	1380	653	308	201	243
MAX	291	533	406	435	693	1420	4480	2380	926	376	272	315
MIN	225	200	142	110	195	392	723	917	383	250	156	178
CFSM	.28	.30	.28	.25	.41	.74	2.69	1.54	.73	.34	.23	.27
IN.	.32	.34	.32	.28	.42	.85	3.00	1.78	.81	.40	.26	.30
AC-FT	15290	16140	15420	13480	20230	40510	143300	84880	38880	18960	12380	14460

CAL YR 1976 TOTAL 650911 MEAN 1778 MAX 12900 MIN 142 CFSM 1.99 IN 27.05 AC-FT 1291000
WTR YR 1977 TOTAL 218757 MEAN 599 MAX 4480 MIN 110 CFSM .67 IN 9.09 AC-FT 433900

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-73, 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 19...	1045	236	48	6.4	.0	7.5	7	10.6	96	2	<1	--
NOV 16...	1015	237	52	6.7	5.0	6.0	1	10.8	93	9	B1	24
DEC 14...	1000	249	50	7.2	5.0	4.0	1	11.7	116	6	B4	--
JAN 11...	1000	171	*52	--	-1.5	1.0	1	6.9	52	0	B2	--
FEB 15...	0920	382	50	7.2	.5	2.5	1	4.4	35	0	B1	21
MAR 15...	0830	683	55	7.3	.5	2.0	1	12.1	95	5	B19	--
APR 12...	1030	2720	52	7.1	16.5	8.0	1	11.7	106	2	B22	18
MAY 10...	0930	1340	43	6.9	11.0	10.5	1	9.9	96	0	52	18
JUN 07...	1030	848	51	7.0	28.0	18.0	1	8.7	99	0	B2	--
AUG 02...	0750	228	53	6.8	14.5	17.0	1	7.7	86	2	B5	--
25...	1120	200	55	7.4	18.0	15.5	0	8.4	90	0	B13	24
SEP 20...	0900	222	56	6.8	10.0	12.5	0	8.3	84	7	<1	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 19...	--	--	--	--	--	--	--	30	0	25	--	--
NOV 16...	0	6.0	2.2	1.1	9	.1	.4	32	0	26	1.4	.4
DEC 14...	--	--	--	--	--	--	--	24	0	20	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 15...	0	5.0	2.0	1.1	10	.1	.3	*26	0	21	3.0	1.3
MAR 15...	--	--	--	--	--	--	--	34	0	28	--	--
APR 12...	0	4.2	1.8	.9	10	.1	.4	24	0	20	2.9	5.4
MAY 10...	0	4.4	1.8	.8	8	.1	.3	27	0	22	5.0	.7
JUN 07...	--	--	--	--	--	--	--	27	0	22	--	--
AUG 02...	--	--	--	--	--	--	--	33	0	27	--	--
25...	0	5.9	2.3	1.3	10	.1	.5	34	0	28	6.5	.3
SEP 20...	--	--	--	--	--	--	--	32	0	26	--	--

* Not a field determination.
B Results based on count outside of ideal colony count range.

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 19...	8.4	34	.05	21.1	0	.00	.00	.00	.00	.00	.00	.00
NOV 16...	8.1	36	.05	23.0	0	.01	.00	.00	.00	.01	.04	.00
DEC 14...	8.3	48	.07	32.3	0	.06	.00	.41	.41	.47	2.1	.01
JAN 11...	8.2	28	.04	12.9	2	.10	.01	.00	.00	.10	.44	.01
FEB 15...	7.4	36	.05	37.1	1	.06	.00	.05	.05	.11	.49	.01
MAR 15...	8.6	42	.06	77.5	0	.09	.01	.36	.37	.46	2.0	.00
APR 12...	9.0	35	.05	257	1	.10	.00	.00	.00	.10	.44	.01
MAY 10...	8.3	22	.03	79.6	0	.00	.00	.00	.00	.00	.00	.00
JUN 07...	8.6	28	.04	64.1	0	.01	.00	.00	.00	.01	.04	.00
AUG 02...	8.6	30	.04	18.5	18	.03	.00	.00	.00	.03	.13	.00
25...	10	34	.05	18.4	0	.07	.01	.14	.15	.22	.97	.04
SEP 20...	9.8	33	.04	19.8	4	.04	.01	.00	.00	.04	.18	.00

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT 19...	1	140	0	10	40	<100	.2	1	20	.4	2
NOV 16...	0	<10	0	<10	30	<100	.0	0	0	.5	0
DEC 14...	0	<10	0	<10	10	<100	.0	0	10	.3	0
JAN 11...	0	<10	0	<10	30	<100	.0	0	20	.9	0
FEB 15...	0	<10	0	<10	20	<100	.0	0	0	.4	0
MAR 15...	2	<10	0	<10	40	<100	2.5	0	20	.0	0
APR 12...	0	<10	0	40	90	100	.6	0	20	.6	0
MAY 10...	0	<10	0	50	50	100	.0	0	20	.5	0
JUN 07...	1	10	0	80	240	100	.7	1	10	.6	0
AUG 02...	0	<10	0	<10	0	<100	.8	0	20	.5	0
25...	0	<10	20	10	0	<100	.0	0	10	.0	0
SEP 20...	0	<10	20	<10	10	<100	.0	0	20	.4	0

12413140 PLACER CREEK AT WALLACE, ID

LOCATION.--Lat 47°27'50", long 115°56'10", in NE¼SW¼ sec.34, T.48 N., R.4 E., Shoshone County, Hydrologic Unit 17010302, on right bank about 400 ft (122 m) upstream from county road bridge, 0.3 mi (0.5 km) downstream from West Fork, 0.4 mi (0.6 km) south of Wallace city limits, and at mile 1.0 (1.6 km).

DRAINAGE AREA.--14.9 mi² (38.6 km²).

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,840 ft or 866 m (from topographic map).

REMARKS.--Records fair except those for winter period, which are poor. Water for town of Wallace is diverted above the station.

AVERAGE DISCHARGE.--9 years, 40.5 ft³/s (1.15 m³/s), 36.91 in/yr (938 mm/yr), 29,340 acre-ft/yr (36.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) Jan. 15, 1974 (gage height, 4.71 ft or 1.44 m) minimum daily, 1.6 ft³/s (45 dm³/s) Jan. 4-6, 1977; minimum gage height, 0.83 ft (0.25 m) Sept. 19, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1964, estimated at 1,300 ft³/s (36.8 m³/s) by Idaho Department of Highways on basis of observed depths in concrete flume downstream. Flood in December 1933 reported slightly higher than 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft³/s (2.04 m³/s) Apr. 8, 25; maximum gage height, 2.54 ft (0.774 m) Apr. 8, no peak above base of 175 ft³/s (4.96 m³/s); minimum daily discharge, 1.6 ft³/s (0.045 m³/s) Jan. 4-6 (gage height, unknown).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 2, Apr. 11-22, July 19 to Aug. 3;
stage-discharge relation affected by ice Jan. 12-14, 26-29, Jan. 31 to Feb. 1)

Aug. 4 to Sept. 30		Dec. 3 to Aug. 3			
1.5	2.6	1.2	1.7	1.9	17
1.6	3.8	1.3	2.6	2.1	28
1.7	5.6	1.5	5.2	2.5	66
1.8	7.9	1.7	9.9		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	7.4	2.4	1.9	2.4	4.4	7.2	48	20	10	5.6	5.3
2	4.0	4.2	2.7	1.7	2.6	4.0	6.6	56	20	10	5.6	4.8
3	3.9	3.5	2.7	1.7	2.6	3.7	8.6	59	19	10	5.6	5.3
4	3.5	3.3	2.6	1.6	2.5	3.7	12	53	20	10	6.1	5.9
5	3.5	3.3	2.6	1.6	2.5	3.8	20	45	19	10	5.9	5.5
6	3.5	3.2	2.5	1.6	2.4	4.2	32	40	17	9.9	5.7	4.4
7	3.4	3.1	3.2	1.7	2.3	9.6	44	37	20	9.3	5.5	4.0
8	3.4	3.5	5.0	1.7	2.5	11	56	35	22	8.8	5.1	4.4
9	3.2	3.3	4.8	1.8	2.8	8.8	62	36	20	9.1	4.8	4.0
10	3.3	3.2	3.8	1.9	5.3	7.2	41	42	20	8.8	4.8	3.9
11	3.4	3.1	3.6	2.0	6.4	6.4	32	42	19	8.3	4.4	3.7
12	3.2	2.9	3.3	2.1	6.2	6.0	29	38	19	7.8	4.6	3.6
13	3.2	2.9	3.3	2.1	6.8	5.8	34	36	19	8.0	4.2	3.6
14	3.2	2.7	3.2	2.2	5.3	5.4	30	36	18	7.5	4.0	3.3
15	3.2	3.0	3.2	2.2	4.7	5.3	27	34	16	7.5	4.0	3.5
16	3.3	3.0	3.0	2.3	4.7	5.1	30	31	15	7.0	4.0	4.4
17	3.4	3.5	2.8	4.0	5.0	5.0	29	31	14	8.0	3.3	5.9
18	3.4	3.9	2.6	7.0	5.1	4.7	27	31	13	9.9	3.0	4.0
19	3.4	3.1	2.4	6.0	4.8	4.8	23	29	13	7.8	3.0	3.9
20	3.3	2.8	2.2	4.5	4.8	4.5	21	27	13	7.0	2.8	5.1
21	3.3	2.7	2.4	4.2	5.6	4.5	21	28	13	7.2	2.7	7.7
22	3.3	2.7	2.5	3.8	5.6	4.6	23	27	13	6.8	3.1	5.5
23	3.3	2.6	2.6	3.7	5.0	5.4	34	27	13	6.4	3.1	4.6
24	3.3	3.2	2.7	3.5	4.7	5.8	53	27	12	6.4	5.7	5.5
25	4.6	6.5	2.9	3.0	4.4	5.4	65	26	12	9.3	5.1	5.9
26	3.9	3.6	3.2	2.8	4.2	5.4	64	25	12	7.5	5.9	5.7
27	3.5	2.7	3.6	2.7	4.1	8.3	52	23	12	6.6	5.7	4.4
28	3.5	2.6	3.8	2.6	4.2	6.8	46	23	11	6.0	5.5	5.5
29	3.4	2.6	3.3	2.5	---	7.0	45	22	11	5.8	6.8	6.6
30	3.3	2.4	2.7	2.6	---	7.2	45	21	11	5.8	6.6	5.7
31	3.9	---	2.3	2.3	---	7.2	---	20	---	5.6	6.6	---
TOTAL	107.5	100.5	93.9	85.3	119.5	181.2	1019.4	1055	476	248.1	148.8	145.6
MEAN	3.47	3.35	3.03	2.75	4.27	5.85	34.0	34.0	15.9	8.00	4.80	4.85
MAX	4.6	7.4	5.0	7.0	6.8	11	65	59	22	10	6.8	7.7
MIN	3.2	2.4	2.2	1.6	2.3	3.7	6.6	20	11	5.6	2.7	3.3
CFSM	.23	.23	.20	.19	.29	.39	2.28	2.28	1.07	.54	.32	.33
IN.	.27	.25	.23	.21	.30	.45	2.54	2.63	1.19	.62	.37	.36
AC-FT	213	199	186	169	237	359	2020	2090	944	492	295	289

CAL YR 1976 TOTAL 12786.4 MEAN 34.9 MAX 351 MIN 2.2 CFSM 2.34 IN 31.92 AC-FT 25360
WTR YR 1977 TOTAL 3780.8 MEAN 10.4 MAX 65 MIN 1.6 CFSM .70 IN 9.44 AC-FT 7500

12413150 SOUTH FORK COEUR D'ALENE RIVER AT SILVERTON, ID

LOCATION.--Lat 47°29'29", long 115°57'12", in SW¼NW¼SE¼ sec.21, T.48 N., R.4 E., Shoshone County, Hydrologic Unit 17010302, on upstream side of bridge at the off ramp of U.S. Highway I-90 at Silverton, 700 ft (213 m) downstream from Lake Creek, and at mile 17.4 (28.0 km).

DRAINAGE AREA.--108 mi^2 (280 km^2). Area at site used prior to Sept. 1, 1976, 103 m^2 (267 km^2).

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Nonrecording and crest-stage gages. Altitude of gage is 2,641.48 ft or 805.1 m (from Idaho Department of Transportation). Prior to Sept. 1, 1976, at site 1,100 ft (335 m) upstream at datum 10.00 ft (3.048 m) lower.

REMARKS.--Records fair. Some flow is diverted through smelters and returned to stream above station.

AVERAGE DISCHARGE.--9 years, 260 ft^3/s (7.36 m^3/s), 32.69 in/yr (830 mm/yr), 188,400 acre-ft/yr (249 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft^3/s (122 m^3/s) Jan. 16, 1974 (gage height, 10.80 ft or 3.29 m); minimum daily, 31 ft^3/s (0.88 m^3/s) Jan. 13, 1975; minimum gage height, 2.85 ft (0.87 m) Oct. 7, 8, Dec. 31, 1974 (site and datum then in use).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 800 ft^3/s (22.7 m^3/s) Apr. 26 (gage height, 7.20 ft or 2.195 m); minimum daily, 34 ft^3/s (0.963 m^3/s) Jan. 3-5, Feb. 7; minimum gage height, 4.87 ft (1.48 m) Feb. 5.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 13-24, 30-31, Jan. 2-13, Jan. 26 to Feb. 2, Feb. 6-8, 10)

4.8	30	6.0	201
5.0	42	6.5	375
5.2	60	7.0	655
5.6	114	7.2	800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	80	48	37	36	50	60	520	219	88	60	49
2	57	70	46	35	37	49	54	711	231	85	60	50
3	59	64	45	34	40	45	55	725	241	85	58	50
4	57	60	47	34	38	46	57	622	245	84	56	56
5	58	55	46	34	36	46	74	470	255	83	57	56
6	56	53	46	35	35	50	108	375	272	85	56	51
7	56	52	48	36	34	83	164	318	307	84	56	50
8	58	54	53	38	37	106	251	388	314	82	54	47
9	57	53	55	40	40	104	333	307	275	79	53	46
10	58	50	49	42	50	83	248	388	241	79	49	46
11	57	50	47	44	58	68	198	470	216	72	50	46
12	55	50	46	43	58	64	175	393	196	71	50	45
13	53	48	45	42	71	61	180	388	178	72	48	45
14	52	46	44	40	59	59	173	398	170	70	50	42
15	52	50	43	40	51	56	159	356	164	67	52	41
16	56	50	41	41	51	53	166	314	159	66	47	48
17	53	50	40	49	51	51	164	314	152	71	46	56
18	51	53	39	57	53	50	159	292	142	83	46	46
19	51	50	38	66	51	49	148	282	136	71	46	46
20	52	50	37	51	53	48	138	265	121	71	46	45
21	51	48	38	49	59	49	132	268	119	68	46	67
22	50	48	39	45	60	50	132	314	110	70	47	56
23	50	48	40	45	60	55	183	303	106	67	54	50
24	50	48	41	44	56	59	375	289	106	67	49	56
25	70	84	43	40	54	56	676	279	104	97	52	52
26	58	60	47	39	53	57	800	265	101	75	55	51
27	54	50	67	38	50	75	622	262	98	72	56	55
28	52	50	51	36	50	68	498	265	92	68	50	62
29	51	50	44	35	---	61	470	248	92	62	58	66
30	50	50	41	35	---	56	470	228	88	62	57	58
31	56	---	39	35	---	58	---	219	---	61	63	---
TOTAL	1698	1624	1393	1279	1381	1865	7422	11236	5250	2317	1627	1534
MEAN	54.8	54.1	44.9	41.3	49.3	60.2	247	362	175	74.7	52.5	51.1
MAX	70	84	67	66	71	106	800	725	314	97	63	67
MIN	50	46	37	34	34	45	54	219	88	61	46	41
CFSM	.53	.53	.44	.40	.48	.58	2.40	3.52	1.70	.73	.51	.50
IN.	.61	.59	.50	.46	.50	.67	2.68	4.06	1.90	.84	.59	.55
AC-FT	3370	3220	2760	2540	2740	3700	14720	22290	10410	4600	3230	3040

CAL YR 1976 TOTAL 91521 MEAN 250 MAX 2430 MIN 37 CFSM 2.43 IN 33.05 AC-FT 181500
WTR YR 1977 TOTAL 38626 MEAN 106 MAX 800 MIN 34 CFSM 1.03 IN 13.95 AC-FT 76610

12413250 SOUTH FORK COEUR D'ALENE RIVER AT KELLOGG, ID

LOCATION.--Lat 49°32'49", long 116°08'09", in SE¼ sec.36, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010302, on left bank at concrete bridge on New Street in Kellogg, 100 ft (30 m) upstream from Bunker Hill settling pond, 200 ft (61 m) downstream from Jackass Creek, 1.9 mi (3.1 km) upstream from Government Gulch, and at mile 6.9 (11.1 km).

DRAINAGE AREA.--194 mi² (502 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year. Records for December 1966 to March 1974 at site 1.9 mi (3.1 km) downstream ("at Smelterville", sta 12413300) not equivalent owing to difference in drainage areas.

GAGE.--Water-stage recorder. Datum of gage is 2,300 ft (701 m) above mean sea level from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft³/s (314 m³/s) Jan. 16, 1974 (gage height, 16.30 ft or 4.968 m); minimum, 30 ft³/s (0.8350 m³/s) Jan. 11, 1975 (gage height, 9.30 ft or 2.835 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 852 ft³/s (24.1 m³/s) Apr. 26 (gage height, 11.08 ft or 3.377 m), no peak above base of 1,500 ft³/s (42.5 m³/s); minimum, 38 ft³/s (1.08 m³/s) Dec. 2 (gage height, 9.49 ft or 2.893 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 5, 20-21, Dec. 30 to Jan. 12, Jan. 25, 28-29, Jan. 31 to Feb. 2, Feb. 8)

9.5	39	10.3	310
9.6	58	10.7	550
9.8	108	11.1	870
10.0	175		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	114	67	54	56	97	103	576	314	114	79	74
2	86	94	67	50	56	84	100	709	332	114	77	69
3	86	88	67	48	54	79	97	752	320	114	77	69
4	84	84	67	46	54	76	97	671	333	111	79	77
5	84	81	66	45	54	79	130	548	324	114	79	79
6	81	79	65	45	54	81	195	465	327	108	77	72
7	79	76	67	46	52	123	295	414	345	103	77	69
8	79	84	72	47	53	242	414	395	359	100	74	67
9	79	78	79	49	52	228	480	411	323	100	69	67
10	79	75	74	52	63	187	372	484	293	97	69	65
11	81	71	69	58	86	146	315	535	271	97	69	60
12	79	70	69	58	84	133	275	496	253	97	67	60
13	79	70	67	58	97	123	285	470	237	97	67	58
14	76	71	67	52	86	114	275	471	223	94	65	58
15	76	73	65	50	76	105	246	443	215	92	65	56
16	76	78	65	54	74	100	246	411	203	89	65	60
17	76	86	65	65	76	94	242	410	191	92	60	77
18	76	93	65	105	79	92	233	395	179	117	60	64
19	76	82	60	105	79	92	219	376	171	103	60	63
20	74	74	57	76	79	89	207	360	168	92	60	69
21	76	71	56	69	86	86	199	363	160	97	60	86
22	76	70	58	67	97	84	206	364	153	89	60	77
23	76	71	60	65	97	92	271	379	146	81	60	71
24	76	84	58	65	92	100	480	378	143	81	69	74
25	89	155	58	64	86	100	718	364	140	111	69	77
26	86	96	65	63	84	100	800	374	136	108	72	79
27	81	73	100	60	81	127	648	359	130	97	79	72
28	76	70	79	59	84	117	555	357	123	89	72	74
29	74	70	72	57	---	108	531	343	120	86	79	88
30	76	70	64	54	---	103	529	319	117	84	81	83
31	79	---	59	56	---	100	---	307	---	81	81	---
TOTAL	2450	2451	2069	1842	2071	3481	9763	13699	6749	3049	2177	2114
MEAN	79.0	81.7	66.7	59.4	74.0	112	325	442	225	98.4	70.2	70.5
MAX	89	155	100	105	97	242	800	752	359	117	81	88
MIN	74	70	56	45	52	76	97	307	117	81	60	56
AC-FT	4860	4860	4100	3650	4110	6900	19360	27170	13390	6050	4320	4190

CAL YR 1976 TOTAL 158001 MEAN 432 MAX 3520 MIN 56 AC-FT 313400
WTR YR 1977 TOTAL 51915 MEAN 142 MAX 800 MIN 45 AC-FT 103000

12413490 SOUTH FORK COEUR D'ALENE RIVER AT ENAVILLE, ID

LOCATION.--Lat 47°33'35", long 116°15'03", in SW¼ sec.30, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010302, at highway crossing, at Enaville.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--Water years 1972-73, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 19...	0845	126	*529	6.5	-1.5	5.5	20	10.2	88	8	<1	--
NOV 16...	0830	122	*602	4.5	4.5	6.5	10	10.2	89	13	B3	210
DEC 14...	0745	117	*438	6.8	-2.0	4.0	20	10.7	106	9	21	--
JAN 11...	0900	94	550	--	-1.0	.5	55	11.4	85	11	<1	--
FEB 15...	0950	135	370	6.7	5.0	4.5	25	7.0	58	1	B2	170
MAR 14...	1415	230	323	6.2	-.5	5.0	10	10.8	92	22	B128	--
APR 12...	0815	484	148	7.1	8.0	5.5	6	11.4	98	5	145	58
MAY 10...	0815	690	151	7.2	14.0	8.5	6	10.4	95	0	B750	59
JUN 07...	0730	458	172	7.1	19.5	15.0	5	9.0	95	17	80	--
AUG 02...	0900	126	322	6.3	15.5	20.0	9	9.1	108	5	88	--
25...	1200	120	*354	6.6	18.0	14.5	15	10.2	107	0	B17	140
SEP 20...	0900	114	357	6.5	10.5	11.5	15	8.9	88	19	88	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 19...	--	--	--	--	--	--	--	13	0	11	--	--
NOV 16...	210	61	14	7.9	7	.2	3.1	0	0	0	210	31
DEC 14...	--	--	--	--	--	--	--	29	0	24	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 15...	140	48	13	7.6	9	.3	2.6	34	0	28	160	3.1
MAR 14...	--	--	--	--	--	--	--	27	0	22	--	--
APR 12...	40	16	4.4	3.2	10	.2	1.1	*22	0	18	47	1.4
MAY 10...	33	17	4.0	2.2	7	.1	.9	32	0	26	45	.9
JUN 07...	--	--	--	--	--	--	--	37	0	30	--	--
AUG 02...	--	--	--	--	--	--	--	33	0	27	--	--
25...	110	36	11	12	16	.5	2.3	39	0	32	130	1.9
SEP 20...	--	--	--	--	--	--	--	39	0	32	--	--

* Not a field determination.
B Results based on count outside of ideal colony count range.

12413490 SOUTH FORK COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 19...	12	381	.52	130	2	.25	.32	.24	.56	.81	3.6	.79
NOV 16...	11	376	.51	124	2	.37	.42	.09	.51	.80	3.9	.64
DEC 14...	13	331	.45	105	10	.39	.56	.54	1.1	1.5	6.6	.78
JAN 11...	15	387	.53	98.4	33	.58	.10	.68	.78	1.4	6.0	7.5
FEB 15...	11	290	.39	106	13	.46	.47	.11	.58	1.0	4.6	.74
MAR 14...	11	218	.30	135	9	.46	.32	.19	.51	.97	4.3	.28
APR 12...	9.6	101	.14	132	4	.26	.08	.07	.15	.41	1.8	.20
MAY 10...	7.9	86	.12	160	4	.16	.06	.06	.12	.28	1.2	.12
JUN 07...	8.4	103	.14	127	5	.09	.08	.25	.33	.42	1.9	.15
AUG 02...	11	220	.30	74.8	22	.13	.07	.18	.25	.38	1.7	.41
25...	12	233	.32	75.5	6	.29	.20	.18	.38	.67	3.0	.36
SEP 20...	12	241	.33	74.2	17	.33	.26	.14	.40	.73	3.2	.37

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT 19...	10	<10	0	30	5200	300	1.8	1	15000	.8	1
NOV 16...	10	270	0	10	3600	1000	1.1	1	8600	1.5	0
DEC 14...	5	90	0	10	3800	100	.3	0	8900	.7	0
JAN 11...	12	90	0	20	6700	300	1.0	0	11000	4.3	0
FEB 15...	5	90	0	10	4500	200	1.7	0	8600	1.1	0
MAR 14...	11	80	0	<10	3100	100	1.3	0	6400	1.0	0
APR 12...	2	20	0	<10	1400	<100	.4	0	2900	.7	0
MAY 10...	1	20	0	<10	930	100	.0	0	2000	.8	0
JUN 07...	3	20	0	<10	940	100	.4	0	3000	.8	0
AUG 02...	15	50	0	<10	2100	100	.1	0	6200	.9	0
25...	16	30	20	20	2000	100	1.5	0	5100	.7	0
SEP 20...	24	40	20	<10	2500	<100	.5	0	3100	.9	0

12413810 COEUR D'ALENE RIVER AT ROSE LAKE, ID

LOCATION.--Lat 47°32'14", long 116°28'17", in SW¼SE¼NW¼ sec.4, T.48 N., R.1 W., Kootenai County, Hydrologic Unit 17010303, at wooden bridge crossing river at Rose Lake.

DRAINAGE AREA.--1,318 mi² (3,414 km²).

PERIOD OF RECORD.--Water years 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
18...	1445	377	151	7.2	9.5	10.5	3	10.5	101	9	<1	--
NOV												
15...	1530	405	152	6.5	7.5	7.0	4	11.2	98	9	<1	82
DEC												
13...	1400	308	*175	7.1	10.0	4.0	7	11.8	113	6	<1	--
JAN												
10...	1400	305	*205	--	.0	.0	6	12.5	92	0	<1	--
FEB												
14...	1430	526	165	7.0	10.0	5.5	7	11.6	100	0	<1	76
MAR												
14...	1300	1060	118	6.4	4.0	4.0	2	11.6	96	21	37	--
APR												
11...	1400	3720	67	7.2	19.0	9.5	2	11.2	106	5	94	26
MAY												
09...	1345	2180	71	7.0	15.5	12.0	1	10.5	105	24	24	27
JUN												
06...	1500	1520	83	7.4	35.0	20.0	2	10.5	123	10	B2	--
AUG												
01...	1400	369	132	7.0	34.5	22.5	4	10.2	125	7	35	--
25...	1000	324	*170	6.8	17.5	19.0	4	8.2	94	0	49	64
SEP												
19...	1345	302	159	6.8	15.0	15.0	4	9.6	102	8	B10	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT												
18...	--	--	--	--	--	--	--	28	0	23	--	--
NOV												
15...	63	23	6.0	3.5	8	.2	1.3	23	0	19	61	.8
DEC												
13...	--	--	--	--	--	--	--	22	0	18	--	--
JAN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
14...	52	21	5.6	3.3	9	.2	1.1	29	0	24	61	2.5
MAR												
14...	--	--	--	--	--	--	--	27	0	22	--	--
APR												
11...	12	6.8	2.2	1.5	11	.1	.5	*17	0	14	14	1.5
MAY												
09...	7	6.9	2.3	1.3	9	.1	.5	24	0	20	13	.4
JUN												
06...	--	--	--	--	--	--	--	32	0	26	--	--
AUG												
01...	--	--	--	--	--	--	--	35	0	29	--	--
25...	36	17	5.3	4.6	13	.3	1.3	34	0	28	51	.9
SEP												
19...	--	--	--	--	--	--	--	56	0	46	--	--

* Not a field determination.

B Results based on count outside of ideal colony count range

12413810 COEUR D'ALENE RIVER AT ROSE LAKE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 18...	9.7	124	.17	126	0	.12	.00	.00	.00	.12	.53	.02
NOV 15...	8.7	92	.13	101	1	.04	.00	.00	.00	.04	.18	.03
DEC 13...	9.4	140	.19	116	7	.15	.10	.40	.50	.65	2.9	.08
JAN 10...	9.6	130	.18	107	6	.26	.21	.00	.11	.37	1.6	.04
FEB 14...	8.6	119	.16	169	0	.21	.14	.02	.16	.37	1.6	.07
MAR 14...	9.3	89	.12	255	0	.19	.08	.11	.19	.38	1.7	.04
APR 11...	8.8	47	.06	472	3	.12	.02	.00	.00	.12	.53	.04
MAY 09...	8.2	36	.05	212	1	.06	.06	.00	.06	.12	.53	.02
JUN 06...	8.2	52	.07	213	1	.02	.02	.00	.02	.04	.18	.03
AUG 01...	8.6	90	.12	89.7	56	.00	.00	1.5	1.5	1.5	6.6	.05
25...	10	111	.15	97.1	11	.01	.17	.16	.33	.34	1.5	.06
SEP 19...	10	91	.12	74.2	7	.08	.01	.04	.05	.13	.58	.02

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE
12413810 - COEUR D'ALENE RIVER AT ROSE LAKE IDAHO DISTRICT CODE 16

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT 18...	2	30	0	<10	380	100	.1	0	3600	.4	1
NOV 15...	1	30	0	<10	470	100	.0	0	2900	.5	--
DEC 13...	4	30	0	<10	1600	200	.2	1	2500	.7	0
JAN 10...	2	30	0	<10	870	<100	.0	0	2600	.9	0
FEB 14...	3	50	0	<10	1100	<100	.1	0	2400	.9	0
MAR 14...	4	50	0	<10	710	<100	2.1	0	2200	.6	0
APR 11...	1	10	0	<10	390	<100	.7	0	460	.9	0
MAY 09...	0	10	0	<10	260	100	.0	0	560	.7	0
JUN 06...	1	10	0	10	240	<100	.4	0	750	.4	0
AUG 01...	2	10	5	<10	380	<100	.4	2	1300	1.1	0
25...	6	10	20	10	1200	100	.3	0	370	.7	0
SEP 19...	5	10	20	<10	1200	100	.3	0	2100	.5	0

12414500 ST. JOE RIVER AT CALDER, ID

LOCATION.--Lat 47°16'30", long 116°11'15", in NW¼SE¼ sec.3, T.45 N., R.2 E., Shoshone County, Hydrologic Unit 17010304, on right bank 150 ft (46 m) southwest of Chicago, Milwaukee, St. Paul, and Pacific Railroad station at Calder, and at mile 42.9 (69 km).

DRAINAGE AREA.--1,030 mi² (2,668 km²), approximately.

PERIOD OF RECORD.--April 1911 to September 1912 (published as "near Calder"), July 1920 to current year.

REVISED RECORDS.--WSP 1182: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,171.76 ft (661.952 m) above mean sea level, or 2,175 ft (663 m) above mean sea level, datum of Geological Survey as given in Bulletin 567. Apr. 14, 1911, to Sept. 30, 1912, nonrecording gage at site 2.5 mi (4 km) downstream at different datum. July 13 to Dec. 21, 1920, nonrecording gage at present site and at datum 60 ft (18.3 m) lower. Dec. 22, 1920, to Sept. 30, 1966, water-stage recorder at present site at datum 60 ft (18.3 m) lower. Oct. 1, 1966, to Aug. 14, 1972, water-stage recorder at present site at datum 15 ft (5 m) lower.

REMARKS.--Records good except those for winter period, which are fair. No diversion above gage.

AVERAGE DISCHARGE.--58 years, 2,372 ft³/s (67.2 m³/s), 31.27 in/yr (794 mm/yr), 1,719,000 acre-ft/yr (2,120 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,000 ft³/s (1,500 m³/s) Dec. 23, 1933, computed on basis of slope between gages downstream; maximum gage height, 18.1 ft (5.5 m) Apr. 18, 1938, from floodmark, present datum; minimum discharge, 91 ft³/s (2.6 m³/s) Nov. 27, 1952; minimum gage height, 3.43 ft (1.05 m) Dec. 5, 1928, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,730 ft³/s (191 m³/s) May 2 (gage height, 9.27 ft or 2.825 m), no peak above base of 8,500 ft³/s (241 m³/s); minimum, 201 ft³/s (5.69 m³/s) Nov. 14 (gage height, 4.69 ft or 1.430 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 13 to Sept. 30; stage-discharge relation affected by ice
Nov. 28 to Dec. 4, Dec. 12 to Feb. 24)

4.6	162	7.0	2,280
5.0	356	8.0	3,920
5.5	680	10.0	8,400
6.0	1,100		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	437	606	295	240	290	572	701	4740	2790	948	534	617
2	471	675	290	230	295	535	653	6130	2960	921	521	477
3	540	499	290	225	300	505	626	6490	2770	895	508	452
4	474	446	290	220	315	482	654	5970	2770	887	514	464
5	446	422	309	220	310	470	959	5150	2710	913	508	471
6	440	407	363	225	310	481	1680	4480	2700	870	489	495
7	433	395	392	230	330	613	2660	4020	2980	836	483	428
8	425	393	519	235	360	1150	3790	3900	3070	803	470	410
9	418	398	547	240	395	1130	4560	4150	2790	780	458	398
10	414	385	464	250	455	958	3610	4480	2470	764	452	386
11	413	377	410	275	530	755	2900	4680	2280	741	440	375
12	410	362	400	290	590	703	2550	4320	2140	725	434	369
13	402	298	385	300	650	662	2730	4190	2020	710	428	358
14	396	238	375	315	680	611	2580	4170	1920	718	422	352
15	389	392	360	325	650	556	2310	3920	1860	688	416	346
16	386	465	345	350	630	526	2370	3610	1750	666	410	352
17	384	436	335	390	650	527	2370	3600	1640	681	404	483
18	378	537	320	485	690	504	2260	3740	1530	965	392	434
19	372	474	290	620	640	507	2090	3630	1450	853	386	386
20	372	403	240	670	660	462	1900	3610	1410	703	380	464
21	372	350	265	510	740	469	1890	3600	1350	659	375	575
22	374	374	310	450	820	471	2020	3540	1280	631	380	561
23	374	371	345	410	760	563	2810	3540	1230	610	392	582
24	368	362	365	380	690	654	4270	3530	1160	603	404	561
25	453	746	385	355	642	657	5670	3340	1110	819	489	636
26	502	614	440	335	600	660	6240	3290	1080	787	471	561
27	429	374	500	325	552	809	5400	3220	1040	652	631	489
28	400	250	550	315	540	800	4700	3140	1030	603	527	555
29	386	280	510	310	---	716	4500	3070	1010	575	534	795
30	378	300	410	300	---	656	4480	2880	974	555	617	819
31	381	---	305	295	---	683	---	2760	---	541	666	---
TOTAL	12817	12629	11604	10320	15074	19847	85933	124890	57274	23102	14535	14653
MEAN	413	421	374	333	538	640	2864	4029	1909	745	469	488
MAX	540	746	550	670	820	1150	6240	6490	3070	965	666	819
MIN	368	238	240	220	290	462	626	2760	974	541	375	346
CFSM	.40	.41	.36	.32	.52	.62	2.78	3.91	1.85	.72	.46	.47
IN.	.46	.46	.42	.37	.54	.72	3.10	4.51	2.07	.83	.52	.53
AC-FT	25420	25050	23020	20470	29900	39370	170400	247700	113600	45820	28830	29060

CAL YR 1976 TOTAL 952345 MEAN 2602 MAX 20200 MIN 238 CFSM 2.53 IN 34.40 AC-FT 1889000
WTR YR 1977 TOTAL 402678 MEAN 1103 MAX 6490 MIN 220 CFSM 1.07 IN 14.54 AC-FT 798700

12414900 ST. MARIES RIVER NEAR SANTA, ID

LOCATION.--Lat 47°10'35", long 116°29'30", in SE¼NW¼ sec.8, T.44 N., R.1 W., Benewah County Hydrologic Unit 17010304, on right bank 450 ft (137 m) upstream from bridge on U.S. Highway 95 Alternate, 0.3 mi (0.5 km) upstream from Santa Creek, 2.7 mi (4.3 km) northwest of Santa, and at mile 24.6 (39.6 km).

DRAINAGE AREA.--275 mi^2 (712 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WRD Idaho 1974: 1968-70(M), 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 2,574.56 ft (784.726 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--12 years, 367 ft^3/s (10.4 m^3/s), 18.12 in/yr (460 mm/yr), 265,900 acre-ft/yr (328 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s (303 m^3/s) Jan. 15, 1974 (gage height, 12.60 ft or 3.84 m); minimum, 23 ft^3/s (0.651 m^3/s) Nov. 26, 1967 (gage height, 3.42 ft or 1.04 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 780 ft^3/s (22.1 m^3/s) Apr. 9; maximum gage height, 5.92 ft (1.804 m) Jan. 18, no peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum discharge, 31 ft^3/s (0.878 m^3/s) Nov. 27 (gage height, 3.53 ft or 1.076 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 22, Nov. 28 to Feb. 23)

Feb. 24 to Sept. 30				Oct. 1 to Feb. 23			
3.6	28	4.8	226	3.4	26	4.2	105
3.8	42	5.3	426	3.6	40	4.6	190
4.1	76	5.8	710	4.0	78		
4.4	127						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	95	52	91	96	106	152	264	257	76	46	57
2	77	104	56	87	96	113	152	382	264	75	44	48
3	104	83	58	84	98	101	143	470	233	74	43	48
4	84	78	57	81	99	96	164	495	233	72	44	53
5	78	75	60	78	98	91	283	400	223	72	44	51
6	77	72	65	76	98	96	382	339	202	74	42	47
7	76	71	70	75	98	125	490	298	200	71	41	42
8	74	71	76	75	102	378	630	275	211	67	41	41
9	72	70	90	76	115	432	654	257	197	65	39	41
10	71	70	83	78	125	314	495	257	176	65	38	40
11	71	70	77	83	140	200	404	386	166	64	37	40
12	70	69	75	89	165	164	360	302	161	61	37	39
13	70	61	74	98	190	141	386	271	154	58	37	39
14	69	59	72	107	175	125	382	257	146	58	37	38
15	68	74	71	120	155	111	318	275	148	57	37	38
16	68	75	71	132	148	109	318	240	143	54	36	39
17	68	77	70	138	143	109	330	275	129	56	35	55
18	67	85	69	145	141	101	290	461	121	89	34	55
19	66	81	66	160	145	104	253	490	117	102	34	45
20	66	73	63	170	150	96	233	559	137	72	34	50
21	67	63	59	150	163	101	227	427	123	65	34	63
22	68	61	70	130	205	101	240	369	111	60	35	69
23	68	59	79	120	190	141	294	339	106	57	36	58
24	68	70	86	115	164	150	360	352	101	56	37	57
25	76	85	92	110	121	137	400	302	94	68	56	95
26	110	83	99	105	109	137	404	294	89	113	52	72
27	84	40	110	102	101	208	352	352	86	75	86	60
28	76	39	108	100	94	205	306	330	82	55	62	63
29	74	41	102	99	---	164	283	365	80	51	58	110
30	72	46	98	98	---	139	268	310	78	48	74	107
31	71	---	94	97	---	152	---	275	---	47	80	---
TOTAL	2305	2100	2372	3269	3724	4747	9953	10668	4568	2077	1390	1660
MEAN	74.4	70.0	76.5	105	133	153	332	344	152	67.0	44.8	55.3
MAX	110	104	110	170	205	432	654	559	264	113	86	110
MIN	66	39	52	75	94	91	143	240	78	47	34	38
CFSM	.27	.26	.28	.38	.48	.56	1.21	1.25	.55	.24	.16	.20
IN.	.31	.28	.32	.44	.50	.64	1.35	1.44	.62	.28	.19	.22
AC-FT	4570	4170	4700	6480	7390	9[illegible]20	19740	21160	9060	4120	2760	3290

CAL YR 1976 TOTAL 149980 MEAN 410 MAX 2650 MIN 39 CFSM 1.49 IN 20.29 AC-FT 297500
WTR YR 1977 TOTAL 48833 MEAN 134 MAX 654 MIN 34 CFSM .49 IN 6.61 AC-FT 96860

12415500 COEUR D'ALENE LAKE AT COEUR D'ALENE, ID

LOCATION.--Lat 47°39'55", long 116°46'05", in NW¼SE¼ sec.24, T.50 N., R.4 W., Kootenai County, Hydrologic Unit 17010303, 500 ft (152 m) southwest of south end of Eleventh Street, Coeur d'Alene, and 113.1 mi (182 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--3,700 mi^2 (9,580 km^2), approximately.

PERIOD OF RECORD.--April 1903 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft (640.080 m) above mean sea level, referred to originally accepted elevation (2,157.40 ft or 657.575 m) of Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). Gage heights reduced to elevations above mean sea level, based on the above datum. Latest adjusted datum of gage is 2,097.00 ft (639.166 m) above mean sea level. Apr. 26, 1903, to Feb. 14, 1905, nonrecording gage at mouth of St. Joe River at datum about 18.7 ft (5.70 m) higher. Feb. 15, 1905, to Mar. 23, 1921, nonrecording gage and Mar. 24, 1921, to Dec. 22, 1930, water-stage recorder, at Johnson Wharf 800 ft (244 m) southeast of railroad station and 1 mi (1.6 km) northwest of present site at datum 19.75 ft (6 m) higher. Dec. 23, 1930, to Feb. 9, 1931, nonrecording gage at present site and datum.

REMARKS.--The Washington Water Power Co. stores water in Coeur d'Alene Lake by regulation at Post Falls Dam for power generation at Post Falls and other plants on Spokane River. Storage is within natural range of lake stage. Contents given herein are those above elevation 2,120.0 ft (646.18 m). Capacity of lake between elevations 2,120 (646.2) and 2,140 ft (652.3 m), 889,000 acre-ft (1,100 hm^3).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 834,900 acre-ft (1,029 hm^3) Dec. 25, 1933 (elevation, 2,139.05 ft or 651.982 m); minimum, 2,700 acre-ft (3.3 hm^3) below zero of contents table Oct. 10-12, 1904, Sept. 24, 25, 1905, Oct. 14 to Nov. 3, 1906 (elevation, 2,119.9 ft or 646.15 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum contents known prior to 1903, 753,300 acre-ft (928.8 hm^3) May 31, 1894 (elevation, 2,137.6 ft or 651.54 m, from high-water marks).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 261,400 acre-ft (322 hm^3) May 26 (elevation, 2,128.47 ft or 648.758 m); minimum, 24,600 acre-ft (30.3 hm^3) Feb. 9, 10 (elevation, 2,120.92 ft or 646.456 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,120.9	24,100	2,126.0	162,900
2,122.0	53,700	2,128.0	238,500
2,124.0	107,900	2,120.0	339,700

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.59	24.74	23.45	22.53	21.26	21.15	21.65	27.20	28.28	27.98	27.90	27.38
2	26.56	24.68	23.41	22.45	21.22	21.14	21.65	27.49	28.24	27.97	27.89	27.34
3	26.48	24.64	23.37	22.39	21.17	21.13	21.65	27.78	28.22	27.96	27.84	27.33
4	26.40	24.59	23.32	22.33	21.13	21.12	21.66	27.94	28.25	27.98	27.82	27.33
5	26.33	24.53	23.28	22.28	21.09	21.10	21.70	28.06	28.28	28.00	27.82	27.30
6	26.28	24.47	23.27	22.22	21.04	21.10	21.83	28.14	28.32	28.01	27.84	27.27
7	26.22	24.43	23.27	22.16	21.00	21.18	22.08	28.21	28.38	27.99	27.80	27.25
8	26.18	24.38	23.28	22.11	20.96	21.29	22.48	28.21	28.41	28.00	27.78	27.18
9	26.11	24.32	23.27	22.05	20.95	21.50	22.96	28.23	28.41	28.02	27.75	27.12
10	26.06	24.26	23.25	21.97	20.95	21.62	23.36	28.26	28.37	28.00	27.72	27.08
11	26.00	24.19	23.23	21.92	20.95	21.69	23.61	28.24	28.33	27.96	27.72	27.03
12	25.94	24.13	23.20	21.91	20.95	21.74	23.78	28.22	28.26	27.95	27.70	27.00
13	25.88	24.06	23.17	21.86	20.96	21.77	23.97	28.20	28.20	27.91	27.65	26.95
14	25.80	23.99	23.13	21.83	20.96	21.77	24.10	28.21	28.17	27.87	27.60	26.92
15	25.73	23.92	23.11	21.77	20.97	21.76	24.21	28.21	28.15	27.85	27.60	26.84
16	25.64	23.88	23.07	21.75	20.99	21.74	24.31	28.22	28.11	27.80	27.63	26.80
17	25.58	23.83	23.05	21.71	21.00	21.71	24.42	28.26	28.10	27.80	27.62	26.77
18	25.52	23.77	22.99	21.74	21.02	21.69	24.52	28.30	28.09	27.86	27.59	26.72
19	25.45	23.72	22.94	21.75	21.04	21.66	24.59	28.33	28.09	27.89	27.56	26.71
20	25.38	23.69	22.89	21.75	21.06	21.64	24.63	28.37	28.12	27.93	27.53	26.70
21	25.31	23.66	22.84	21.75	21.07	21.61	24.67	28.42	28.12	27.97	27.51	26.68
22	25.24	23.63	22.80	21.74	21.08	21.57	24.68	28.42	28.11	27.97	27.50	26.65
23	25.18	23.60	22.79	21.70	21.09	21.57	24.76	28.44	28.11	27.95	27.44	26.64
24	25.12	23.60	22.75	21.66	21.11	21.56	24.96	28.45	28.11	27.93	27.46	26.63
25	25.09	23.58	22.77	21.62	21.18	21.56	25.39	28.44	28.10	27.99	27.45	26.62
26	25.05	23.61	22.77	21.57	21.15	21.59	25.81	28.45	28.08	28.00	27.45	26.58
27	25.00	23.59	22.75	21.53	21.13	21.57	26.21	28.42	28.06	27.98	27.44	26.53
28	24.93	23.54	22.73	21.47	21.15	21.61	26.50	28.40	28.03	27.98	27.43	26.51
29	24.88	23.52	22.69	21.42	---	21.62	26.74	28.37	28.00	27.95	27.43	26.49
30	24.81	23.48	22.64	21.37	---	21.63	26.92	28.34	27.96	27.93	27.42	26.47
31	24.80	---	22.59	21.31	---	21.63	---	28.30	---	27.91	27.42	---
MAX	26.59	24.74	23.45	22.53	21.26	21.77	26.92	28.45	28.41	28.02	27.90	27.38
MIN	24.80	23.48	22.59	21.31	20.95	21.10	21.65	27.20	27.96	27.80	27.42	26.47
(†)	129800	93800	69600	35200	30800	43700	192300	253000	236600	234200	212000	177000
(‡)	-52700	-36000	-24200	-34400	-4400	+12900	+148600	+60700	-16400	-2400	-22200	-35000

CAL YR 1976........... ‡ -139000
WTR YR 1977........... ‡ -5500

† Contents, in acre-feet at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Add 2,100 to obtain elevation above mean sea level.

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID
(Hydrologic bench-mark station)

LOCATION.--Lat 47°49'22", long 116°39'10", in NW¼SW¼ sec.25, T.52 N., R.3 W., Kootenai County, Hydrologic Unit 17010305, Coeur d'Alene National Forest, on right bank 0.3 mi (0.5 km) downstream from confluence of East Fork and North Fork, and 7.5 mi (12.1 km) northeast of Hayden Lake Post Office.

DRAINAGE AREA.--22.0 mi^2 (570.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to December 1953, October 1958 to September 1959, September 1961 to September 1965 (annual maximum), October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,370 ft or 722 m (from topographic map). April 22, 1948, to Nov. 1, 1948, nonrecording gage and Nov. 2, 1948, to June 26, 1951, water-stage recorder at site 200 ft (61 m) downstream at datum 0.98 ft (0.30 m) lower. June 27, 1951, to Dec. 4, 1953, Oct. 1, 1958, to Sept. 30, 1959, water-stage recorder, Sept. 16, 1961, to Sept. 30, 1965, crest-stage gage, at datum 0.41 ft (0.12 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--18 years (1949-53, 1959, 1966-77), 29.4 ft^3/s (0.833 m^3/s), 18.15 in/yr (461 mm/yr), 21,300 acre-ft/yr (26.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 790 ft^3/s (22.4 m^3/s) Dec. 23, 1964 (gage height, 4.56 ft or 1.390 m, present site and datum), from rating curve extended above 270 ft^3/s (7.65 m^3/s) on basis of slope-area measurement; maximum gage height, 4.93 ft (1.503 m) Feb. 11, 1951 (ice jam), site and datum then in use; minimum discharge recorded, 1.7 ft^3/s (0.048 m^3/s) Aug. 19-20, 1977 (gage height, 2.25 ft or 0.686 m); minimum gage height, 2.19 ft (0.668 m) Dec. 12, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft^3/s (0.680 m^3/s) Apr. 8, no peak above base of 200 ft^3/s (5.66 m^3/s); maximum gage height, 2.91 ft or 0.887 m (ice jam) Dec. 30, minimum discharge, 1.7 ft^3/s (0.048 m^3/s) Aug. 19-20 (gage height, 2.25 ft or 0.686 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 1-4, 20, 21, Dec. 29 to Jan. 4)

2.1	1.1	2.5	6.5
2.2	1.9	2.6	10.0
2.3	2.9	2.7	17.0
2.4	4.3	2.9	39

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	5.8	4.0	4.5	3.8	5.9	6.8	7.8	8.6	4.0	2.7	2.4
2	6.0	4.5	4.1	4.1	3.7	6.0	6.4	12	8.2	3.9	2.6	2.4
3	5.3	4.3	4.1	4.0	3.7	6.0	6.6	11	7.8	3.9	2.5	2.6
4	4.7	4.3	4.0	3.8	3.6	5.9	7.4	11	10	4.0	2.5	3.2
5	4.7	4.3	3.9	3.6	3.5	6.0	9.4	9.6	8.9	4.2	2.5	2.9
6	4.7	4.2	4.0	3.6	3.5	6.3	13	8.8	8.2	4.0	2.5	2.5
7	4.5	4.2	4.3	3.5	3.5	6.5	17	8.5	8.2	3.9	2.3	2.4
8	4.5	4.2	6.0	3.5	3.5	6.8	21	7.9	11	3.9	2.3	2.5
9	4.5	4.2	6.0	3.5	3.5	12	21	7.5	8.6	3.9	2.2	2.4
10	4.5	4.0	4.7	3.6	3.5	9.9	17	9.5	7.8	3.7	2.2	2.4
11	4.5	4.0	4.5	3.7	3.7	7.6	15	12	7.1	3.7	2.1	2.4
12	4.5	3.9	4.3	3.9	4.1	7.0	13	9.3	7.8	3.7	2.0	2.4
13	4.5	3.9	4.3	4.2	4.4	6.3	15	8.5	7.1	3.7	1.9	2.3
14	4.3	3.9	4.3	4.6	4.3	5.7	15	8.1	6.4	3.6	1.8	2.3
15	4.2	4.2	4.2	5.2	4.3	5.5	13	7.6	6.2	3.5	1.9	2.2
16	4.2	4.3	4.3	6.0	4.3	5.4	13	7.4	6.0	3.5	1.9	2.2
17	4.2	4.3	4.2	8.0	4.6	5.2	12	8.7	5.8	3.5	1.9	2.6
18	4.2	4.3	4.2	12	4.7	5.0	11	8.2	5.6	5.3	1.8	2.3
19	4.2	4.2	4.0	5.5	4.7	5.0	10	7.5	5.6	3.7	1.8	2.4
20	4.2	4.0	3.9	4.5	4.6	4.8	9.6	7.3	5.6	3.3	1.8	2.6
21	4.2	4.0	3.8	4.5	5.0	4.8	9.2	8.5	5.1	3.3	1.9	3.4
22	4.2	4.0	4.0	4.5	5.7	5.1	8.8	8.6	4.9	3.0	1.9	2.9
23	4.2	4.0	4.0	4.5	6.0	6.1	9.8	8.4	4.7	2.9	1.9	2.7
24	4.3	5.3	3.9	4.3	5.8	6.8	12	8.2	4.5	2.9	3.7	3.9
25	6.5	9.9	4.0	4.3	5.6	6.6	13	7.8	4.5	5.8	2.9	3.7
26	4.9	5.3	7.8	4.2	5.5	6.6	12	8.9	4.3	4.0	3.2	3.7
27	4.5	4.9	9.4	4.2	5.4	7.8	11	8.2	4.3	3.1	3.2	3.1
28	4.3	4.3	8.5	4.1	5.6	7.2	9.4	8.9	4.2	2.9	2.8	3.1
29	4.2	4.2	7.0	4.0	---	7.0	8.8	8.9	4.2	2.8	2.8	4.2
30	4.2	4.0	6.0	4.0	---	6.8	8.2	8.2	4.2	2.7	2.5	3.7
31	5.1	---	5.2	3.9	---	6.9	---	8.2	---	2.8	2.4	---
TOTAL	141.5	134.9	150.9	141.8	124.1	200.5	354.4	271.0	195.4	113.1	72.4	83.8
MEAN	4.56	4.50	4.87	4.57	4.43	6.47	11.8	8.74	6.51	3.65	2.34	2.79
MAX	6.5	9.9	9.4	12	6.0	12	21	12	11	5.8	3.7	4.2
MIN	4.2	3.9	3.8	3.5	3.5	4.8	6.4	7.3	4.2	2.7	1.8	2.2
CFSM	.21	.21	.22	.21	.20	.29	.54	.40	.30	.17	.11	.13
IN.	.24	.23	.26	.24	.21	.34	.60	.46	.33	.19	.12	.14
AC-FT	281	268	299	281	246	398	703	538	388	224	144	166

CAL YR 1976 TOTAL 9201.4 MEAN 25.1 MAX 226 MIN 3.8 CFSM 1.14 IN 15.56 AC-FT 18250
WTR YR 1977 TOTAL 1983.8 MEAN 5.44 MAX 21 MIN 1.8 CFSM .25 IN 3.35 AC-FT 3930

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)
NOV 04...	1100	4.1	68	7.5	7.0	6.5	3	11.9	104	81
JAN 20...	1030	4.6	72	7.3	.0	2.0	1	5.2	41	81
MAR 31...	1030	6.8	85	7.2	10.0	5.0	2	12.0	101	B16
MAY 24...	1115	8.5	77	7.8	16.5	9.0	1	10.6	100	46
JUL 18...	1115	6.7	84	8.2	17.5	13.0	1	9.6	99	B940
SEP 15...	0945	2.3	85	7.0	11.0	9.0	0	10.2	96	84

DATE	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 04...	163	37	0	9.9	3.1	1.5	8	.1	.6	51
JAN 20...	--	34	0	9.1	2.8	1.3	8	.1	.5	*44
MAR 31...	85	36	2	9.1	3.2	1.2	7	.1	.5	*42
MAY 24...	<1	35	0	9.0	3.1	1.3	7	.1	.5	54
JUL 18...	81	39	0	9.8	3.5	1.8	9	.1	.7	*47
SEP 15...	<1	40	0	10	3.6	1.7	8	.1	.7	54

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
NOV 04...	0	42	1.4	.5	.1	11	52	55	.07	.61
JAN 20...	0	36	3.4	.6	.1	9.7	--	50	.07	.62
MAR 31...	0	34	5.1	.4	.1	11	--	52	.07	.95
MAY 24...	0	44	4.5	.5	.1	11	--	57	.08	1.31
JUL 18...	0	39	2.3	.7	.0	12	--	54	.07	.98
SEP 15...	0	44	3.2	.5	.1	13	--	59	.08	.37

* Not a field determination.
B Results based on count outside of ideal colony count range.

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)
NOV 04...	1	.29	.00	0	10	0	<10	70	<100	.0
JAN 20...	--	.24	.01	--	--	--	--	--	--	--
MAR 31...	--	.26	.00	--	--	--	--	--	--	--
MAY 24...	--	.10	.00	0	<10	0	<10	50	<100	.2
JUL 18...	--	--	.00	--	--	--	--	--	--	--
SEP 15...	--	--	.00	0	10	10	<10	60	<100	.0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	DIS-SOLVED URANIUM (U) (UG/L)
NOV 04...	1100	<.7	<.4	.9	<.4	.8	<.4	.04	.06

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL PCB (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR-DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)
NOV 04...	1100	.0	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
NOV 04...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
NOV			
04...	1100	1	.01
JAN			
20...	1030	<1	--
MAR			
31...	1030	1	.02
MAY			
24...	1115	1	.02
JUL			
15...	1115	<1	--
SEP			
15...	0945	<1	.01

12417000 HAYDEN LAKE AT HAYDEN LAKE, ID

LOCATION.--Lat 47°46'02", long 116°45'12", in SE¼NW¼ sec.18, T.51 N., R.3 W., Kootenai County, Hydrologic Unit 17010305, at Avondale pumping plant, 1.6 mi (2.6 km) northeast of Hayden Lake Post Office.

DRAINAGE AREA.--62.3 mi² (161 km²).

PERIOD OF RECORD.--May 1920 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 2,200.21 ft (670.624 m) above mean sea level. Prior to Oct. 1, 1925, at datum 30.35 ft (9.251 m) higher. Oct. 1, 1925, to Mar. 26, 1931, at datum 21.60 ft (6.584 m) higher.

REMARKS.--Water is pumped from lake for irrigation and domestic supply. Lake has no natural surface outlet. Some surface flow leaves the lake during high stages (most years) through a controlled outlet in the dike at the southeast corner. Due to the permeability of the lakebed and outlet area, the excess flow leaves the area by infiltration to the ground water of Rathdrum Prairie.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 42.46 ft (12.942 m) Apr. 22, 1956; minimum observed, 19.38 ft (5.907 m) Dec. 16, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 35.78 ft (10.906 m) Oct. 1; minimum observed, 29.99 ft (9.141 m) Sept. 23, 24, 30.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.78	35.16	34.71	34.38	34.06	33.85	33.77	33.51	33.37	32.59	31.52	30.45
2	35.74	35.14	34.70	34.38	34.06	33.84	33.76	33.52	33.36	32.55	31.47	30.41
3	35.72	35.13	34.68	34.38	34.05	33.83	33.75	33.52	33.35	32.51	31.44	30.37
4	35.70	35.12	34.66	34.38	34.04	33.82	33.74	33.52	33.34	32.46	31.41	30.36
5	35.68	35.08	34.66	34.37	34.03	33.80	33.73	33.51	33.34	32.40	31.37	30.35
6	35.66	35.06	34.65	34.37	34.02	33.79	33.72	33.50	33.34	32.36	31.34	30.34
7	35.62	35.04	34.64	34.37	34.00	33.77	33.72	33.49	33.32	32.32	31.30	30.33
8	35.60	35.02	34.62	34.35	33.98	33.79	33.72	33.48	33.31	32.28	31.26	30.32
9	35.58	35.00	34.64	34.34	33.97	33.84	33.71	33.47	33.30	32.24	31.21	30.29
10	35.56	34.99	34.62	34.32	33.96	33.88	33.71	33.46	33.29	32.20	31.18	30.26
11	35.54	34.98	34.60	34.30	33.95	33.88	33.71	33.48	33.27	32.17	31.14	30.23
12	35.52	34.97	34.58	34.28	33.95	33.87	33.70	33.49	33.25	32.13	31.10	30.20
13	35.50	34.97	34.58	34.26	33.94	33.88	33.70	33.48	33.24	32.09	31.07	30.18
14	35.48	34.96	34.56	34.25	33.93	33.89	33.70	33.47	33.22	32.05	31.04	30.17
15	35.46	34.93	34.54	34.24	33.92	33.90	33.70	33.45	33.19	32.03	31.00	30.14
16	35.40	34.90	34.53	34.25	33.90	33.90	33.70	33.43	33.16	32.00	30.96	30.11
17	35.38	34.88	34.52	34.25	33.88	33.90	33.69	33.44	33.13	31.93	30.92	30.09
18	35.36	34.88	34.50	34.26	33.87	33.89	33.68	33.43	33.10	31.90	30.88	30.07
19	35.34	34.86	34.48	34.26	33.86	33.88	33.67	33.42	33.07	31.88	30.84	30.05
20	35.32	34.84	34.46	34.24	33.86	33.86	33.65	33.41	33.04	31.84	30.80	30.04
21	35.30	34.84	34.44	34.23	33.87	33.84	33.64	33.40	33.00	31.80	30.76	30.02
22	35.28	34.82	34.43	34.22	33.88	33.83	33.64	33.41	32.96	31.77	30.72	30.00
23	35.26	34.80	34.44	34.20	33.87	33.83	33.62	33.41	32.92	31.73	30.68	29.99
24	35.24	34.79	34.44	34.19	33.87	33.83	33.60	33.40	32.88	31.72	30.64	29.99
25	35.24	34.75	34.42	34.18	33.86	33.83	33.59	33.40	32.85	31.73	30.62	30.00
26	35.22	34.72	34.44	34.16	33.86	33.82	33.58	33.40	32.80	31.74	30.60	30.00
27	35.20	34.72	34.46	34.14	33.85	33.82	33.57	33.39	32.76	31.72	30.58	30.00
28	35.20	34.72	34.45	34.12	33.85	33.81	33.57	33.40	32.71	31.70	30.55	30.00
29	35.18	34.72	34.44	34.10	---	33.80	33.55	33.40	32.66	31.67	30.52	30.00
30	35.17	34.72	34.42	34.09	---	33.79	33.52	33.39	32.63	31.63	30.50	29.99
31	35.16	---	34.40	34.07	---	33.78	---	33.38	---	31.56	30.48	---
MAX	35.78	35.16	34.71	34.38	34.06	33.90	33.77	33.52	33.37	32.59	31.52	30.45
MIN	35.16	34.72	34.40	34.07	33.85	33.77	33.52	33.38	32.63	31.56	30.48	29.99

12418000 RATHDRUM PRAIRIE CANAL AT HUETTER, ID

LOCATION.--Lat 47°42'35", long 116°52'05", in SE¼NE¼ sec.6, T.50 N., R.4 W., Kootenai County, Hydrologic Unit 17010305, on left bank 171 ft (52 m) downstream from outlet of discharge pipe, 0.6 mi (1.0 m) north of pumping plant, and 0.8 mi (1.2 km) northwest of Huetter.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for October 1945 to March 1946, published in WSP 1316.

GAGE.--Water-stage recorder. Datum of gage is 2,272.02 ft (692.512 m) above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 5, 1967, water-stage recorder at site 365 ft (111 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Canal carries water which is pumped from Spokane River in sec.7, T.50 N., R.4 W., for irrigation of first unit of Rathdrum Prairie project (about 3,000 acres or 1,210 hm^2).

EXTREMES.--Period of record: Maximum daily discharge, 66 ft^3/s (1.87 m^3/s) June 29 to July 2, 1947; no flow for long periods in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	27	30	60	60	51
2	.00	.00	.00	.00	.00	.00	.00	21	30	60	61	51
3	.00	.00	.00	.00	.00	.00	.00	29	30	60	60	50
4	.00	.00	.00	.00	.00	.00	.00	30	30	60	59	50
5	.00	.00	.00	.00	.00	.00	.00	30	30	59	57	50
6	.00	.00	.00	.00	.00	.00	.00	30	30	55	56	50
7	.00	.00	.00	.00	.00	.00	.00	30	41	40	55	50
8	.00	.00	.00	.00	.00	.00	.00	30	33	.00	52	50
9	.00	.00	.00	.00	.00	.00	.00	30	47	.00	51	51
10	.00	.00	.00	.00	.00	.00	.00	31	47	.00	51	51
11	.00	.00	.00	.00	.00	.00	.00	31	46	.00	51	51
12	.00	.00	.00	.00	.00	.00	.00	32	46	.00	51	39
13	.00	.00	.00	.00	.00	.00	.00	33	47	.00	51	33
14	.00	.00	.00	.00	.00	.00	.00	33	49	.00	52	33
15	.00	.00	.00	.00	.00	.00	.00	34	39	7.9	52	9.2
16	.00	.00	.00	.00	.00	.00	.00	34	44	53	51	.00
17	.00	.00	.00	.00	.00	.00	.00	34	51	52	51	.00
18	.00	.00	.00	.00	.00	.00	.00	34	52	52	51	.00
19	.00	.00	.00	.00	.00	.00	.00	34	41	52	51	.00
20	.00	.00	.00	.00	.00	.00	.00	34	39	53	51	.00
21	.00	.00	.00	.00	.00	.00	.00	34	54	53	51	.00
22	.00	.00	.00	.00	.00	.00	.00	34	55	54	51	.00
23	.00	.00	.00	.00	.00	.00	.00	21	56	54	51	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	57	55	52	.00
25	.00	.00	.00	.00	.00	.00	17	.00	58	56	51	.00
26	.00	.00	.00	.00	.00	.00	6.4	.00	58	57	50	.00
27	.00	.00	.00	.00	.00	.00	18	.00	59	59	50	.00
28	.00	.00	.00	.00	.00	.00	25	.00	59	61	50	.00
29	.00	.00	.00	.00	---	.00	35	.00	59	61	50	.00
30	.00	.00	.00	.00	---	.00	37	.00	60	62	51	.00
31	.00	---	.00	.00	---	.00	---	19	---	62	51	---
TOTAL	.00	.00	.00	.00	.00	.00	138.40	729.00	1377	1297.90	1632	669.20
MEAN	.000	.000	.000	.000	.000	.000	4.61	23.5	45.9	41.9	52.6	22.3
MAX	.00	.00	.00	.00	.00	.00	37	34	60	62	61	51
MIN	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	50	.00
AC-FT	.00	.00	.00	.00	.00	.00	275	1450	2730	2570	3240	1330

CAL YR 1976 TOTAL 5238.80 MEAN 14.3 MAX 64 MIN .00 AC-FT 10390
WTR YR 1977 TOTAL 5843.50 MEAN 16.0 MAX 62 MIN .00 AC-FT 11590

12419000 SPOKANE RIVER NEAR POST FALLS, ID

LOCATION.--Lat 47°42'10", long 116°58'40", in SW¼SW¼ sec.4, T.50 N., R.5 W., Kootenai County, Hydrologic Unit 17010305, on right bank, 1 mi (1.6 km) downstream from powerplant of Washington Water Power Co., 1.5 mi (2.4 km) southwest of Post Falls, and at mile 100.7 (162 km).

DRAINAGE AREA.--3,840 mi² (9,946 km²), approximately, of which about 122 mi² (316 km²) in the vicinity of Hayden Lake is noncontributing to this station.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year (prior to January 1913 monthly discharge only, published in WSP 870 and 1736). Prior to October 1949, published as "at Post Falls".

GAGE.--Water-stage recorder. Datum of gage is 2,050 ft (624.8 m) above mean sea level, referenced to same datum as gage on Coeur d'Alene Lake at Coeur d'Alene (see sta 12415500). Datum of 1929, supplementary adjustment of 1947, is 3.00 ft higher. Jan. 1, 1913, to Nov. 21, 1920, nonrecording gage and Nov. 22, 1920, to Sept. 30, 1964, water-stage recorder at present site or 0.6 (1.0) or 0.8 mi (1.3 km) upstream at datum 50 ft (15.2 m) lower than present datum.

REMARKS.--Records excellent except those for November, December, and August, which are good. Rathdrum Prairie Canal (see sta 12418000) diverts water above gage for irrigation. Figures of daily discharge do not include water diverted by this canal. Flow regulated by dam at Post Falls and affected by storage in Coeur d'Alene Lake (see sta 12415500).

AVERAGE DISCHARGE.--River only, 65 years, 6,301 ft³/s (178 m³/s), 4,565,000 acre-ft/yr (5,629 hm³/yr); combined river and diversions above gage, 65 years, 6,392 ft³/s (187 m³/s), 4,631,000 acre-ft/yr (5,710 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 ft³/s (1,419 m³/s) when recorder was not operating Dec. 25, 1933 (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 65 ft³/s (1.84 m³/s) July 25, 30, 1973; minimum gage height, 4.68 ft (1.426 m) July 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,630 ft³/s (216.1 m³/s) May 11 (gage height, 12.02 ft or 3.664 m); minimum, 71 ft³/s (2.01 m³/s) July 20, 21 (gage height, 4.68 ft or 1.426 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1900	1930	1430	1610	1690	1650	2250	3670	5300	1230	708	1290
2	1890	1930	1430	1610	1690	1770	2200	3940	5320	900	728	1290
3	1900	1940	1430	1610	1530	1740	2250	5270	5010	758	750	1290
4	1900	1940	1430	1610	1460	1690	2280	6360	4250	534	770	1290
5	1900	1940	1430	1610	1480	1690	2340	6050	3520	637	770	1320
6	1890	1930	1430	1620	1500	1680	2440	5520	3440	748	770	1310
7	1880	1580	1420	1630	1490	1700	2530	5750	3680	849	770	1310
8	1880	1930	1420	1640	1490	1740	3040	6220	3910	900	770	1320
9	1890	1930	1420	1650	1500	1920	3250	6200	3950	998	770	1320
10	1900	1930	1420	1660	1490	2100	3830	6750	4230	1090	770	1310
11	1900	1940	1420	1660	1490	2250	4130	7400	4440	1410	760	1310
12	1900	1950	1420	1680	1490	2330	3760	7540	4610	1420	760	1300
13	1900	1960	1420	1680	1500	2420	4190	6870	4040	1420	760	1310
14	1900	1970	1430	1690	1500	2430	4200	6320	3590	1420	760	1310
15	1910	1960	1430	1690	1410	2420	4210	5990	3590	1420	300	1310
16	1920	1960	1430	1690	1450	2400	4220	5360	3140	1420	110	1320
17	1920	1960	1430	1690	1500	2370	4220	5380	2490	750	520	1320
18	1920	1970	1430	1690	1500	2360	4230	5370	2310	90	730	1310
19	1920	1600	1420	1680	1500	2250	4200	5390	2220	77	700	1330
20	1920	1420	1430	1670	1500	2210	4240	5170	2080	77	620	1340
21	1930	1420	1430	1680	1500	2260	4240	4830	1730	165	680	1340
22	1940	1420	1430	1690	1590	2250	4160	5370	1710	878	660	1330
23	1930	1420	1440	1690	1740	2180	4060	5340	1720	871	651	1400
24	1930	1420	1440	1690	1590	2160	3980	5350	1690	880	651	1460
25	1940	1430	1450	1690	1660	2160	3600	5340	1610	884	643	1450
26	1940	1420	1450	1690	1760	2180	3590	5370	1630	1160	703	1610
27	1940	1430	1440	1690	1760	2200	3780	5650	1630	1130	743	1740
28	1930	1430	1530	1680	1690	2210	3790	5790	1630	870	739	1730
29	1930	1430	1600	1680	---	2210	3780	5810	1630	879	716	1810
30	1930	1430	1600	1670	---	2200	3760	5350	1620	878	718	1860
31	1930	---	1600	1680	---	2290	---	5320	---	824	1050	---
TOTAL	59310	51920	44930	51600	43450	65420	106750	176040	91710	27567	21550	41940
MEAN	1913	1731	1449	1665	1552	2110	3558	5679	3057	889	695	1398
MAX	1940	1970	1600	1690	1760	2430	4240	7540	5320	1420	1050	1860
MIN	1880	1420	1420	1610	1410	1650	2200	3670	1610	77	110	1290
AC-FT	117600	103000	89120	102300	86180	129800	211700	349200	181900	54680	42740	83190
MEAN†	1913	1731	1449	1665	1552	2110	3563	5702	3103	931	748	1420
AC-FT†	117600	103000	89120	102300	86180	129800	212000	350600	184600	57250	45980	84520

CAL YR 1976 TOTAL 2514620 MEAN 6871 MAX 30200 MIN 1230 AC-FT 4988000 MEAN† 6885 AC-FT 4998000
WTR YR 1977 TOTAL 782187 MEAN 2143 MAX 7540 MIN 77 AC-FT 1551000 MEAN† 2159 AC-FT 1563000

† Adjusted for diversion through Rathdrum Prairie Canal.

12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 18...	1100	1980	50	7.4	7.5	12.0	2	9.5	95	6	<1	--
NOV 15...	1300	2000	52	6.7	9.0	8.0	1	10.6	96	9	<1	26
DEC 13...	1000	1420	55	7.1	2.0	5.0	2	11.1	108	6	<1	--
JAN 10...	1100	1640	*60	--	-8.0	2.0	2	12.1	94	0	B3	--
FEB 14...	1130	1460	56	6.9	7.5	5.0	1	12.4	104	1	B3	23
MAR 14...	1045	2420	70	7.2	4.0	4.5	1	13.7	114	12	B10	--
APR 11...	1100	4280	59	6.9	15.0	9.5	1	11.7	110	8	69	24
MAY 09...	1030	6220	66	7.2	14.5	12.0	2	10.7	107	1	<1	--
JUN 06...	1130	3810	62	7.4	22.0	16.5	1	9.9	109	14	<1	--
AUG 01...	1200	628	66	7.2	29.5	25.0	1	7.7	99	0	<1	--
22...	1115	662	64	7.2	14.5	24.0	1	7.9	100	0	B22	25
SEP 19...	1130	1250	65	6.8	15.5	16.0	1	8.4	91	11	B13	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 18...	--	--	--	--	--	--	--	33	0	27	--	--
NOV 15...	6	7.0	2.0	1.3	10	.1	.7	24	0	20	3.9	.6
DEC 13...	--	--	--	--	--	--	--	20	0	16	--	--
JAN 10...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 14...	7	6.1	1.8	1.5	12	.1	.6	20	0	16	6.7	3.9
MAR 14...	--	--	--	--	--	--	--	24	0	20	--	--
APR 11...	6	6.5	1.9	1.3	10	.1	.7	22	0	18	7.4	5.4
MAY 09...	--	--	--	--	--	--	--	34	0	28	11	3.1
JUN 06...	--	--	--	--	--	--	--	32	0	26	--	--
AUG 01...	--	--	--	--	--	--	--	27	0	22	--	--
22...	0	6.8	1.9	1.7	13	.1	.7	36	0	30	13	.6
SEP 19...	--	--	--	--	--	--	--	26	0	21	--	--

* Not a field determination.
B Results based on count outside of ideal colony count range.

12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT												
18...	7.1	42	.06	225	0	.01	.00	.04	.04	.05	.22	.01
NOV												
15...	7.4	43	.06	232	0	.03	.02	.00	.00	.03	.13	.02
DEC												
13...	9.0	54	.07	207	0	.09	.00	.46	.46	.55	2.4	.03
JAN												
10...	8.7	36	.05	159	4	.09	.01	.10	.11	.20	.89	.02
FEB												
14...	7.8	45	.06	177	1	.03	.00	.11	.11	.14	.62	.02
MAR												
14...	7.9	49	.07	320	0	.01	.01	.34	.35	.36	1.6	.06
APR												
11...	7.8	50	.07	578	4	.06	.01	.05	.06	.12	.53	.02
MAY												
09...	6.9	35	.05	588	4	.01	.00	.13	.13	.14	.62	.01
JUN												
06...	6.4	34	.05	350	0	.01	.00	.06	.06	.07	.31	.01
AUG												
01...	5.7	36	.05	61.0	56	.00	.00	.15	.15	.15	.66	.04
22...	6.3	41	.06	73.3	4	.01	.00	.03	.03	.04	.18	.04
SEP												
19...	6.3	33	.04	111	14	.03	.02	.11	.13	.16	.71	.00

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT											
18...	1	<10	0	260	80	<100	.0	0	160	1.5	--
NOV											
15...	0	--	0	20	40	<100	.0	0	180	1.7	0
DEC											
13...	1	<10	0	330	40	<100	.0	0	310	1.3	0
JAN											
10...	1	<10	0	100	60	<100	.0	0	210	1.7	0
FEB											
14...	0	<10	0	20	40	<100	.0	0	190	1.8	0
MAR											
14...	1	<10	0	320	90	<100	.2	0	260	1.8	0
APR											
11...	0	10	0	20	90	<100	.8	0	230	1.3	0
MAY											
09...	1	<10	0	280	120	100	.0	0	290	1.4	0
JUN											
06...	0	<10	0	20	60	<100	.7	0	190	.9	0
AUG											
01...	1	<10	0	120	20	<100	.0	0	160	1.4	0
22...	0	<10	20	<10	0	<100	.2	0	100	1.6	0
SEP											
19...	0	<10	20	<10	0	<100	.1	0	120	1.1	0

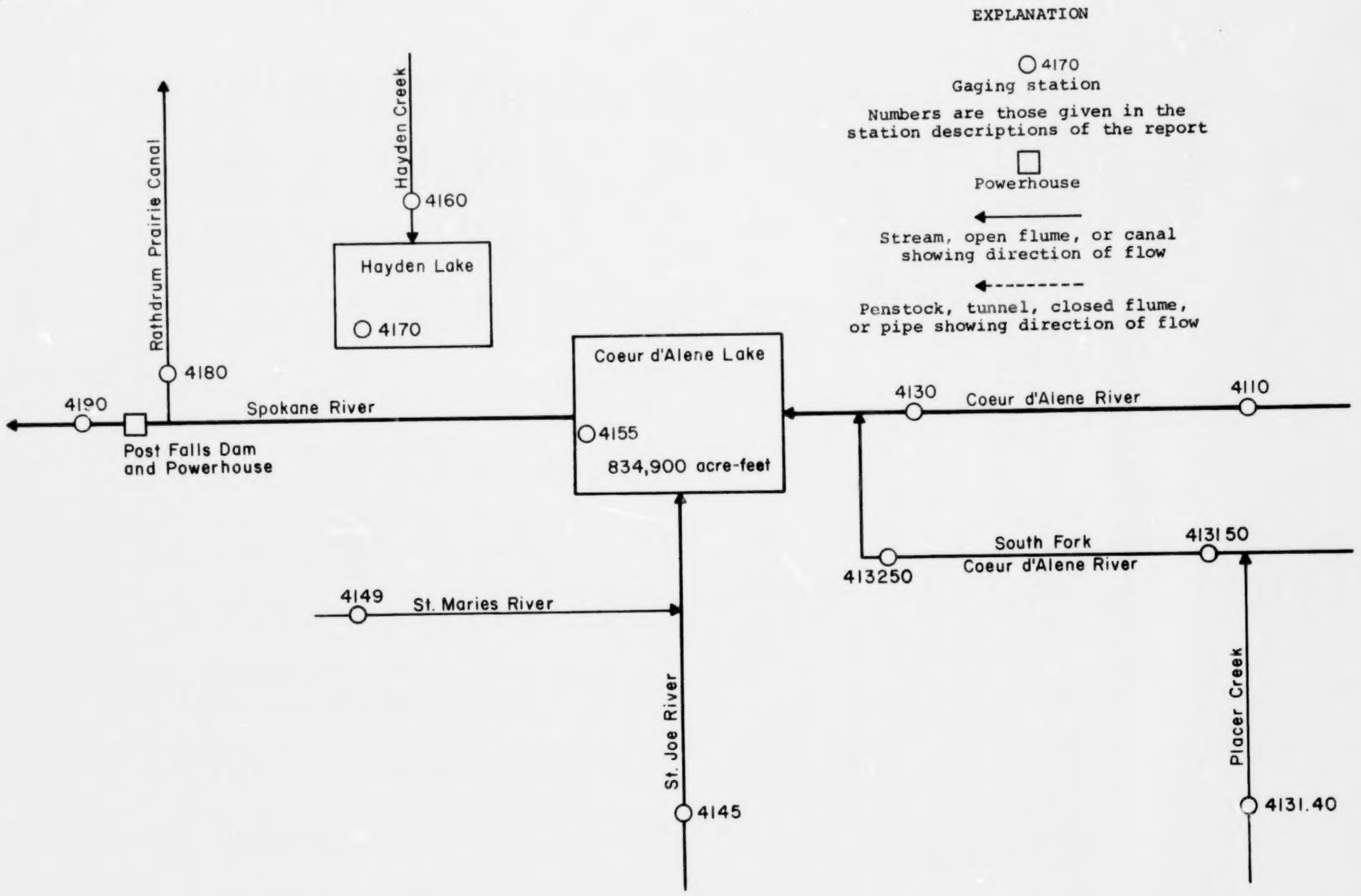
EXPLANATION
4170
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Rathdrum Prairie Canal
4180
Hayden Creek
4160
Hayden Lake
4170
4190
Spokane River
Post Falls Dam and Powerhouse
Coeur d'Alene Lake
4155
834,900 acre-feet
4130
Coeur d'Alene River
4110
South Fork Coeur d'Alene River
413150
413250
4149
St. Maries River
St. Joe River
4145
Placer Creek
4131.40

FIGURE 12.--Gaging stations in Spokane River basin.

SNAKE RIVER MAIN STEM

13010500 JACKSON LAKE NEAR MORAN, WY

LOCATION.--Lat 43°51'33", long 110°35'23", in SE¼SW¼ sec.18, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, near left end of spillway over Jackson Lake Dam on Snake River, 4.3 mi (6.9 km) west of Moran, and at mile 988.9 (1,591.1 km).

DRAINAGE AREA.--807 mi² (2,090 km²).

PERIOD OF RECORD.--July 1908 to current year (1908-10 fragmentary). Prior to October 1968, published as "at Moran".

REVISED RECORDS.--WRD Idaho 1974: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (Bureau of Reclamation datum). Datum of Geological Survey, unadjusted, is 2.08 ft (0.634 m) lower. Prior to June 1, 1941, at site 300 ft (91 m) upstream at same datum.

REMARKS.--Reservoir was formed by log crib dam built in the outlet of the natural lake in 1906. Usable capacity was 300,000 acre-ft (370 hm³). This dam washed out in July 1910 and was replaced by an earth dam, forming a reservoir with a usable capacity of 380,000 acre-ft (469 hm³). The earth dam was raised in 1916, increasing the usable capacity to 790,000 acre-ft (974 hm³). In 1917, by dredging the outlet, the capacity was further increased to 847,000 acre-ft (1,040 hm³) between elevations 6,730 ft or 2,051 m (top of baffles to sluices) and 6,769 ft or 2,063 m (top of spillway gates). Reservoir is used to store water for irrigation in Snake River valley, Idaho. Figures given herein represent usable contents.

COOPERATION.--Reservoir elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 859,530 acre-ft (1,060 hm³) July 11, 1965 (elevation, 6,769.49 ft or 2,063.341 m); no usable contents for several days during period August to October 1919.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 692,600 acre-ft (854 hm³) June 7 (elevation, 6,762.82 ft or 2,061.308 m); minimum, 226,700 acre-ft (280 hm³) Sept. 24, 26 (elevation, 6,742.21 ft or 2,055.026 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

6,740	182,500
6,750	392,900
6,760	624,400
6,770	872,600

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	563600	568300	569700	576300	586200	598300	615800	649900	685100	564300	377400	272700
2	564200	568500	569700	577000	586500	599000	616500	653500	684600	556200	372500	271200
3	564500	568500	569700	578400	586700	599500	617400	656900	686500	548300	367500	270000
4	565000	568500	569700	579600	587000	599600	617900	660000	689400	540800	336100	269000
5	565200	568700	569700	579800	587200	600000	618400	662200	689900	533100	358200	267700
6	565200	569000	569900	579800	587700	600500	618900	663700	691600	525600	354100	266900
7	565400	569200	570900	580100	588100	601000	619300	665600	692600	518200	349300	265200
8	565400	569400	571100	580300	588600	601200	620100	666600	692400	510700	345100	263500
9	565400	569400	571600	580500	589100	601700	620800	668300	690900	503600	340400	259200
10	565700	569700	571600	580800	589600	602400	621700	671200	689400	497100	336000	254400
11	565700	569900	572000	581000	590000	603300	622000	674300	687000	489500	331700	250900
12	565700	569900	572000	581300	590300	603600	622700	676300	683800	482300	327300	246600
13	565900	569700	572000	581500	590700	604000	623800	678200	680200	475700	322600	242600
14	566200	569700	572300	582000	591000	604500	624400	679900	676300	468400	318500	237900
15	566400	569700	572300	582700	591500	605200	625800	682100	670900	461700	314000	235300
16	566400	569700	572300	583400	591900	605700	626500	682900	665400	455800	310200	233900
17	566600	569700	572500	583600	592400	606200	627700	685100	660300	449600	306300	232400
18	566600	569700	572700	583900	592600	606900	628700	686000	654000	444000	302700	231200
19	566600	569400	572700	584100	592900	607600	629400	686600	648200	438500	299700	229600
20	566600	569400	573000	584100	593100	609600	630400	687500	642600	433100	296500	228400
21	566800	569900	573200	584100	593600	610000	630800	687700	637100	427900	293400	227500
22	567100	569900	573200	584300	593800	610500	631300	688000	631100	423400	290200	227100
23	567300	569900	573200	584800	595000	611000	632000	688200	624800	418400	287600	226900
24	567300	569900	574400	584800	595500	611200	633200	688700	618600	414100	284700	226700
25	567300	570200	574600	584800	596400	611700	634500	689200	611200	411900	281900	226900
26	567600	570200	574900	585000	596700	612600	636900	689900	604000	407700	281100	226700
27	567600	569900	575100	585300	597600	613100	638500	690700	596400	402700	280900	226900
28	567600	569900	575300	585300	598100	613800	641700	690200	588400	397600	279400	226900
29	567800	569700	575300	585300	---	614300	644100	689000	580300	392700	277300	227100
30	568000	569700	575600	585800	---	614800	646700	687500	572500	387600	275600	227300
31	568000	---	575800	586000	---	615300	---	686000	---	382500	274200	---
MAX	568000	570200	575800	586000	598100	615300	646700	690700	692600	564300	377400	272700
MIN	563600	568300	569700	576300	586200	598300	615800	649900	572500	382500	274200	226700
(†)	6757.63	6757.70	6757.96	6758.39	6758.90	6759.62	6760.93	6762.55	6757.82	6749.53	6744.51	6742.24
(‡)	+4400	+1700	+6100	+10200	+12100	+17200	+31400	+39300	-113500	-190000	-108300	-46900

CAL YR 1976........... ‡ -42100
WTR YR 1977........... ‡ -336300

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

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13011000 SNAKE RIVER NEAR MORAN, WY

LOCATION.--Lat 43°51'31", long 110°35'09", in SW¼SE¼ sec.18, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 1,000 ft (305 m) downstream from Jackson Lake Dam, 4.1 mi (6.6 km) west of Moran, and at mile 984.5 (1,584.1 km).

DRAINAGE AREA.--807 mi² (2,090 km²). Mean altitude, 8,040 ft (2,450 m).

PERIOD OF RECORD.--September 1903 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "South Fork Snake River at Moran" prior to October 1910 and as "Snake River at Moran" October 1910 to September 1968.

REVISED RECORDS.--WSP 1217: 1944(m). WSP 1347: 1906-10. WRD Idaho 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,727.84 ft (2,050.646 m) above mean sea level, unadjusted. Prior to June 13, 1917, nonrecording gage, and June 14, 1917, to May 20, 1940, water-stage recorder, at site 1.5 mi (2.4 km) downstream at different datums.

REMARKS.--Records excellent. Flow regulated by Jackson Lake (see sta 13010500).

COOPERATION.--Once-daily gage readings for current reporting purposes furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--74 years, 1,445 ft³/s (40.92 m³/s), 1,047,000 acre-ft/yr (1,290 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s (428 m³/s) June 12, 1918 (gage height, 10.41 ft or 3.173 m, site and datum then in use); minimum, 0.30 ft³/s (0.01 m³/s) Oct. 26, 27, 28, 1969 (gage height, 0.89 ft or 0.271 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood during early June 1894 was considerably higher than that of June 12, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,000 ft³/s (142 m³/s) June 24 (gage height, 7.22 ft or 2.201 m); minimum, 86 ft³/s (2.44 m³/s) Feb. 8 (gage height, 1.42 ft or 0.433 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.2	231	6.0	3,260
3.0	580	7.0	4,660
4.0	1,220	8.0	6,290
5.0	2,110		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	309	262	277	223	90	93	252	2270	4870	2890	986
2	407	309	262	277	185	90	93	251	2480	4840	2870	981
3	406	309	262	277	142	90	93	248	2480	4820	2850	975
4	406	309	262	277	102	90	93	244	2490	4790	2840	975
5	405	309	265	276	103	90	93	338	2490	4760	2780	972
6	409	309	266	277	104	90	94	491	2800	4650	2740	967
7	412	309	266	277	104	90	96	491	3310	4500	2720	1150
8	422	309	266	277	86	89	98	491	3800	4360	2640	1750
9	425	293	261	279	105	90	101	491	4000	4290	2590	2240
10	425	269	261	281	105	90	103	491	4000	4260	2570	2220
11	425	270	262	281	106	91	100	491	3990	4230	2550	2300
12	376	268	262	281	106	90	100	491	3980	4210	2540	2370
13	324	267	262	281	107	90	99	677	3970	4180	2480	2280
14	320	264	262	281	106	91	96	942	4260	3950	2440	1710
15	320	263	262	278	106	91	97	942	4440	3610	2350	1320
16	319	262	263	278	104	93	97	945	4420	3480	2260	1040
17	317	262	266	277	104	93	96	950	4410	3460	2150	1040
18	317	262	266	277	99	93	110	951	4390	3360	2040	1040
19	317	262	266	277	90	93	193	953	4370	3260	1920	939
20	317	262	266	277	90	93	246	951	4440	3100	1870	683
21	317	262	266	277	90	93	256	949	4490	2980	1860	507
22	316	261	266	277	90	93	250	949	4470	2970	1810	420
23	316	260	268	277	90	93	249	1250	4450	2960	1780	355
24	316	260	269	277	89	93	250	1460	4730	2950	1700	297
25	312	258	269	277	90	93	251	1480	4980	2950	1600	295
26	313	259	273	280	90	93	251	1480	4940	2960	1510	267
27	311	262	272	258	91	93	251	1770	4960	2970	1390	209
28	309	262	273	227	90	92	251	1980	4960	2950	1310	180
29	309	262	273	227	---	93	251	1970	4930	2940	1240	180
30	309	262	273	230	---	93	252	1970	4900	2920	1110	180
31	309	---	274	231	---	93	---	1960	---	2900	1020	---
TOTAL	10913	8284	8246	8401	2997	2839	4703	29299	120600	115430	66420	30828
MEAN	352	276	266	271	107	91.6	157	945	4020	3724	2143	1028
MAX	425	309	274	281	223	93	256	1980	4980	4870	2890	2370
MIN	309	258	261	227	86	89	93	244	2270	2900	1020	180
AC-FT	21650	16430	16360	16660	5940	5630	9330	58110	239200	229000	131700	61150

CAL YR 1976 TOTAL 634964 MEAN 1735 MAX 6050 MIN 258 AC-FT 1259000
WTR YR 1977 TOTAL 408960 MEAN 1120 MAX 4980 MIN 86 AC-FT 811200

13011900 BUFFALO FORK ABOVE LAVA CREEK, NEAR MORAN, WY

LOCATION.--Lat 43°50'14", long 110°26'21", in SE¼NE¼ sec.29, T.45 N., R.113 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on right bank underneath bridge on U.S. Highway 26, 287, about 2 mi (3 km) upstream from Lava Creek, 3.5 mi (5.6 km) east of Moran, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--323 mi² (837 km²).

PERIOD OF RECORD.--September 1965 to current year. July to November 1906, July 1917 to September 1918, and September 1944 to September 1960 at sites about 4 mi (6 km) downstream.

REVISED RECORDS.--WRD Idaho 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,772.78 ft (2,064.343 m) above mean sea level (U.S. Bureau of Public Roads bench mark).

REMARKS.--Records good except those for winter period, which are fair. No regulation or significant diversions above station.

AVERAGE DISCHARGE.--12 years (1966-77), 574 ft³/s (16.26 m³/s), 415,900 acre-ft/yr (513 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,020 ft³/s (170 m³/s) June 19, 1974 (gage height, 7.91 ft or 2.411 m); minimum daily, 82 ft³/s (2.32 m³/s) Jan. 28-31, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,450 ft³/s (97.7 m³/s) June 5 (gage height, 6.01 ft or 1.832 m), no peak above base of 3100 ft³/s (88 m³/s); minimum daily, 100 ft³/s (2.83 m³/s) many days during February and March.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	210	130	130	125	110	100	640	756	335	167	161
2	256	215	130	130	120	110	100	644	1250	315	163	159
3	275	213	135	130	115	105	105	586	1700	328	161	149
4	280	205	130	130	110	105	115	476	2160	310	182	147
5	268	202	130	125	110	100	140	338	2650	335	171	143
6	269	203	135	120	105	110	170	300	2410	310	184	141
7	257	193	135	125	105	120	210	285	2270	282	173	137
8	264	197	140	120	110	115	270	396	2680	268	167	137
9	266	208	135	110	105	115	250	464	2570	268	160	135
10	259	193	120	115	105	115	230	769	2200	258	155	137
11	252	187	125	120	110	110	221	640	1540	245	155	133
12	247	150	130	125	115	110	216	549	1490	223	152	130
13	241	155	130	125	120	105	197	640	1390	202	145	128
14	236	160	130	125	115	105	200	702	1310	195	142	128
15	236	170	130	125	110	105	184	661	1150	184	141	133
16	231	175	130	130	107	100	213	517	1100	180	137	153
17	232	180	125	135	115	100	287	461	967	175	135	151
18	208	170	125	135	115	100	226	414	920	175	135	145
19	211	155	120	135	110	100	193	382	827	173	145	139
20	216	140	120	130	110	100	178	357	901	169	143	135
21	218	130	120	125	115	100	178	340	799	169	139	143
22	216	140	125	130	110	110	195	383	717	186	149	143
23	223	135	130	120	110	125	258	387	731	178	133	145
24	207	133	130	110	105	120	320	435	706	197	145	141
25	220	130	130	105	100	115	415	524	671	285	165	139
26	218	125	135	110	100	105	526	508	662	236	233	139
27	212	115	140	110	100	100	599	462	586	211	240	136
28	206	120	130	115	105	100	667	428	522	197	202	135
29	214	130	125	115	---	100	586	400	450	186	182	135
30	217	135	125	115	---	100	694	373	396	178	178	155
31	201	---	125	115	---	100	--	430	---	173	169	---
TOTAL	7314	4974	4000	3790	3082	3315	8243	14891	38481	7126	5048	4232
MEAN	236	166	129	122	110	107	275	480	1283	230	163	141
MAX	280	215	140	135	125	125	694	769	2680	335	240	161
MIN	201	115	120	105	100	100	100	285	396	169	133	128
CFSM	.73	.51	.40	.38	.34	.33	.85	1.49	3.97	.71	.51	.44
IN.	.84	.57	.46	.44	.35	.38	.95	1.71	4.43	.82	.58	.49
AC-FT	14510	9870	7930	7520	6110	6580	16350	29540	76330	14130	10010	8390

CAL YR 1976 TOTAL 237633 MEAN 649 MAX 3450 MIN 108 CFSM 2.01 IN 27.37 AC-FT 471300
WTR YR 1977 TOTAL 104496 MEAN 286 MAX 2680 MIN 100 CFSM .89 IN 12.03 AC-FT 207300

13018750 SNAKE RIVER BELOW FLAT CREEK, NEAR JACKSON, WY

LOCATION.--Lat 43°22'20", long 110°44'17", in NE¼SE¼ sec.3, T.39 N., R.116 W., Teton County, Hydrologic Unit 17040103, on left bank 20 ft (6.1 m) upstream from county road bridge, about 1 mi (1.6 km) downstream from Flat Creek, 4.8 mi (7.7 km) upstream from Hoback River, 7.0 mi (11.3 km) south of Jackson, and at mile 939.9 (1,509.1 km).

DRAINAGE AREA.--2,627 m^2 (6,804 km^2).

PERIOD OF RECORD.--November 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,950 ft (1,814 m), from topographic map.

REMARKS.--Records fair. Flow partly regulated by Jackson Lake (see sta 13010500). Some diversions from tributaries above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft^3/s (447 m^3/s) June 4, 1976 (gage height, 7.80 ft or 2.377 m); minimum daily, 880 ft^3/s (24.9 m^3/s) Mar. 4, 6, 14, 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) June 9 (gage height, 6.42 ft or 1.957 m); minimum daily, 880 ft^3/s (24.9 m^3/s) Mar. 4, 6, 14, 17.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27, 28, Dec. 18 to Jan. 1, Jan. 5-14, 25-31)

1.7	862	5.0	6,750
2.0	1,170	6.0	9,620
3.0	2,540	7.0	12,800
4.0	4,400		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1960	1590	1290	1280	1130	900	920	2140	3680	6720	4080	2140
2	1970	1600	1310	1290	1090	910	930	2260	4870	6650	4060	2050
3	2050	1600	1290	1290	1070	890	930	2220	5770	6650	4060	2030
4	2040	1600	1270	1240	1050	880	920	2040	6570	6540	4080	2030
5	2050	1590	1280	1250	990	890	990	1780	7550	6570	4140	2010
6	2040	1570	1270	1240	990	880	1040	1760	8000	6420	4080	2000
7	2010	1570	1320	1280	1000	890	1080	1870	8570	6110	4020	2000
8	2000	1550	1330	1260	1010	900	1160	1820	9530	5990	3940	2250
9	2010	1550	1330	1220	980	910	1270	1900	10400	5790	3820	2840
10	1970	1530	1310	1200	1000	920	1380	2050	10200	5700	3780	3100
11	1940	1480	1310	1180	960	890	1390	2390	9600	5600	3720	3100
12	1910	1440	1280	1200	940	890	1360	2190	8600	5530	3660	3250
13	1860	1370	1290	1220	960	890	1310	2140	8110	5460	3630	3240
14	1780	1320	1340	1240	940	880	1270	2010	7740	5410	3570	3010
15	1740	1320	1320	1180	940	890	1250	2890	8170	5030	3490	2640
16	1750	1330	1340	1180	940	890	1220	2820	7630	4720	3340	2290
17	1720	1380	1310	1190	950	880	1320	2760	7410	4700	3220	2140
18	1720	1450	1320	1180	940	900	1360	2670	7170	4590	3130	2130
19	1650	1450	1320	1190	920	940	1240	2620	7040	4400	3030	2080
20	1640	1400	1350	1180	910	930	1220	2530	7550	4370	2860	1960
21	1670	1360	1340	1170	920	920	1250	2430	7280	4140	2820	1760
22	1650	1330	1320	1170	930	920	1190	2430	6980	4100	2860	1650
23	1650	1330	1300	1160	920	940	1190	2510	6890	4120	2810	1610
24	1650	1320	1290	1180	920	960	1260	3010	6830	4370	2760	1550
25	1670	1330	1280	1160	900	960	1390	3250	7250	4630	2760	1480
26	1690	1360	1270	1180	920	950	1550	3340	7220	4500	2910	1460
27	1670	1300	1260	1160	910	930	1690	3240	7170	4420	2770	1410
28	1640	1380	1240	1140	910	930	1830	3550	7200	4330	2590	1330
29	1600	1320	1280	1120	---	930	1870	3530	7060	4250	2500	1320
30	1600	1290	1270	1100	---	920	1970	3470	6880	4170	2350	1290
31	1610	---	1260	1090	---	910	---	3450	---	4140	2230	---
TOTAL	55910	43030	40280	37120	27040	28220	38750	79670	224910	160120	103070	63150
MEAN	1804	1434	1299	1197	966	910	1292	2570	7497	5165	3325	2105
MAX	2050	1600	1350	1290	1130	960	1970	3550	10400	6720	4140	3250
MIN	1600	1290	1240	1090	900	880	920	1760	3680	4100	2230	1290
AC-FT	110900	85350	79900	73630	53630	55970	76860	158000	446100	317600	204400	125300

CAL YR 1976 TOTAL 1698090 MEAN 4640 MAX 15000 MIN 1240 AC-FT 3368000
WTR YR 1977 TOTAL 901270 MEAN 2469 MAX 10400 MIN 880 AC-FT 1788000

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°11'47", long 110°53'18", Lincoln County, Hydrologic Unit 17040103, on right bank 0.3 mi (0.5 km) downstream from Wolf Creek, 6.4 mi (10.3 km) upstream from Greys River, 7.4 mi (11.9 km) east of Alpine, and at mile 917.5 (1,476.3 km).

DRAINAGE AREA.--3,465 mi² (8,974 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1937 to March 1939 (published as "above Greys River, near Alpine"), July 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,683.90 ft (1,732.453 m) above mean sea level, unadjusted. Mar. 16, 1937, to Mar. 31, 1939, at site 6.0 mi (9.7 km) downstream at different datum.

REMARKS.--Records excellent except those for winter period, which are fair. Flow partly regulated by Jackson Lake (see sta 13010500). Some diversions from tributaries above station.

AVERAGE DISCHARGE.--25 years (1938, 1954-77), 4,587 ft³/s (130 m³/s), 3,323,000 acre-ft/yr (4.10 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft³/s (810 m³/s) June 19, 1974 (gage height, 11.96 ft or 3.645 m); minimum, 740 ft³/s (21.0 m³/s) Nov. 16, 1955 (gage height, 2.19 ft or 0.668 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,800 ft³/s (334 m³/s) June 9 (gage height, 7.45 ft or 2.271 m); minimum, 1,030 ft³/s (29.2 m³/s) Mar. 16 (gage height, 2.47 ft or 0.753 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 11 to Jan. 17)

2.8	1,340	7.0	10,200
3.0	1,540	9.0	17,200
4.0	2,920	10.0	21,000
5.0	4,870		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2150	1830	1600	1520	1370	1140	1100	2600	4060	6750	4150	2330
2	2150	1840	1600	1540	1340	1140	1110	2680	5380	6670	4120	2230
3	2280	1840	1610	1530	1320	1120	1080	2640	6650	6690	4130	2170
4	2250	1940	1580	1500	1280	1100	1090	2580	7570	6570	4160	2160
5	2230	1820	1590	1480	1210	1100	1180	2390	8470	6690	4190	2140
6	2230	1820	1580	1480	1200	1110	1250	2190	9030	6510	4170	2140
7	2190	1800	1630	1520	1220	1110	1340	2270	9410	6270	4120	2110
8	2170	1790	1660	1520	1250	1110	1440	2220	10000	6060	4040	2290
9	2160	1800	1670	1500	1190	1120	1590	2280	11100	5920	3920	2880
10	2140	1790	1610	1480	1210	1150	1730	2460	11000	5860	3870	3310
11	2110	1750	1580	1460	1190	1130	1730	2820	10000	5730	3820	3330
12	2090	1690	1570	1480	1150	1100	1700	2610	9210	5650	3780	3460
13	2040	1600	1590	1510	1180	1100	1640	2520	8750	5570	3740	3470
14	1990	1560	1620	1530	1160	1100	1600	2900	8360	5520	3670	3300
15	1950	1560	1600	1480	1160	1090	1550	3360	8440	5220	3620	2850
16	1940	1620	1620	1490	1160	1090	1550	3290	8190	4900	3480	2520
17	1920	1670	1610	1500	1200	1100	1660	3230	7920	4800	3360	2300
18	1900	1740	1610	1480	1180	1110	1680	3100	7690	4730	3280	2240
19	1860	1750	1630	1460	1160	1100	1560	3060	7570	4530	3200	2180
20	1850	1720	1650	1440	1120	1130	1510	2950	7680	4460	3000	2080
21	1870	1660	1620	1460	1130	1110	1530	2810	7790	4300	2960	1900
22	1870	1640	1600	1440	1160	1100	1500	2780	7490	4260	3030	1770
23	1880	1670	1590	1440	1140	1100	1510	2870	7270	4240	2990	1720
24	1870	1650	1580	1450	1130	1130	1590	3290	7130	4420	2910	1620
25	1890	1690	1560	1440	1130	1160	1730	3670	7390	4920	2960	1550
26	1910	1660	1550	1470	1170	1150	1900	3840	7400	4680	3310	1520
27	1880	1460	1550	1450	1170	1120	2010	3720	7270	4570	3180	1480
28	1860	1600	1520	1420	1170	1120	2200	3990	7160	4450	2880	1420
29	1850	1610	1520	1400	---	1100	2260	3980	7020	4340	2720	1380
30	1860	1630	1510	1400	---	1090	2430	3910	6860	4230	2610	1390
31	1850	---	1500	1380	---	1070	---	3850	---	4190	2440	---
TOTAL	62190	51100	49310	45650	33440	34500	47750	92860	239250	163720	107810	67240
MEAN	2006	1703	1591	1473	1194	1113	1592	2995	7975	5281	3478	2241
MAX	2280	1840	1670	1540	1370	1160	2430	3990	11100	6750	4190	3470
MIN	1850	1460	1500	1380	1120	1070	1080	2190	4060	4190	2440	1380
AC-FT	123400	101400	97810	90550	66330	68430	94710	184200	474600	324700	213800	133400

CAL YR 1976 TOTAL 1973360 MEAN 5392 MAX 19300 MIN 1450 AC-FT 3914000
WTR YR 1977 TOTAL 994820 MEAN 2726 MAX 11100 MIN 1070 AC-FT 1973000

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge at Astoria Springs, 3.0 mi (4.8 km) downstream from Hoback River, 13 mi (21 km) upstream from discharge station, and 15 mi (24 km) northeast of Alpine.

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1966, January 1974 to current year.
WATER TEMPERATURES: October 1965 to September 1966, January 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 430 micromhos Mar. 23, 1976; minimum daily, 188 micromhos June 21, 26, 1974, July 10, 1975.
WATER TEMPERATURES: Maximum, 20.0°C July 30, 1977; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 413 micromhos Feb. 19; minimum daily, 192 micromhos June 9.
WATER TEMPERATURES: Maximum, 20.0°C July 30; minimum, 0.0°C on several days during December to January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM, .7UM-MF (COL./100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT										
11...	0900	2120	370	7.7	9.0	1	9.2	B12	28	150
13...	1605	2090	381	--	9.0	--	--	--	--	--
NOV										
22...	0930	1550	370	7.7	2.0	1	9.2	21	21	160
25...	1007	1670	359	--	2.5	--	--	--	--	--
DEC										
21...	1000	1620	360	7.8	.0	1	11.7	42	33	180
JAN										
23...	1000	1440	400	7.8	.0	1	12.6	52	22	170
FEB										
15...	1545	1050	420	--	.0	--	--	--	--	--
20...	1000	1120	430	7.8	.5	1	11.0	64	53	190
MAR										
21...	1045	1040	420	7.8	1.5	1	10.6	B8	87	190
30...	1610	1080	420	--	3.0	--	--	--	--	--
APR										
17...	1030	1630	380	7.9	7.0	5	10.8	B13	31	170
MAY										
11...	1640	2780	322	--	9.0	--	--	--	--	--
14...	1130	2760	320	7.8	8.5	4	9.2	45	48	140
JUN										
11...	1030	9890	240	7.5	12.0	9	9.0	69	61	100
22...	1945	7410	256	--	15.0	--	--	--	--	--
JUL										
22...	0930	4320	510	7.0	17.0	2	7.7	34	63	170
AUG										
09...	1740	3880	290	--	17.6	--	--	--	--	--
19...	0915	3220	260	7.6	14.0	0	8.4	41	B110	110
SEP										
16...	1030	2510	280	7.6	11.0	0	9.2	28	68	120
22...	1600	1780	331	--	8.4	--	--	--	--	--

B Results based on colony count outside the acceptable range (non-ideal colony count).

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT									
11...	27	44	11	8.8	.3	2.1	150	0	123
13...	--	--	--	--	--	--	--	--	--
NOV									
22...	29	46	12	8.2	.3	1.9	160	0	131
25...	--	--	--	--	--	--	--	--	--
DEC									
21...	49	52	13	8.2	.3	2.3	160	0	131
JAN									
23...	31	49	12	9.9	.3	3.0	170	0	139
FEB									
15...	--	--	--	--	--	--	--	--	--
20...	59	54	14	11	.3	1.9	160	0	131
MAR									
21...	42	55	13	11	.3	2.6	180	0	148
30...	--	--	--	--	--	--	--	--	--
APR									
17...	39	50	11	9.6	.3	2.1	160	0	131
MAY									
11...	--	--	--	--	--	--	--	--	--
14...	33	42	9.6	6.9	.2	1.9	130	0	107
JUN									
11...	22	29	6.6	9.6	.4	2.3	95	0	78
22...	--	--	--	--	--	--	--	--	--
JUL									
22...	55	47	13	36	1.2	6.6	140	0	115
AUG									
09...	--	--	--	--	--	--	--	--	--
19...	20	30	8.0	8.6	.4	3.1	110	0	90
SEP									
16...	22	31	11	13	.5	2.6	120	0	98
22...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
OCT									
11...	46	3.6	.4	12	200	.27	1140	.11	.04
13...	--	--	--	--	--	--	--	--	--
NOV									
22...	52	5.5	.5	11	213	.29	891	.05	.03
25...	--	--	--	--	--	--	--	--	--
DEC									
21...	54	3.6	.5	14	227	.31	993	.11	.07
JAN									
23...	48	6.0	.5	12	225	.31	875	.18	.11
FEB									
15...	--	--	--	--	--	--	--	--	--
20...	72	7.4	.5	12	254	.35	768	.02	.07
MAR									
21...	65	5.3	.5	10	252	.34	708	.05	.01
30...	--	--	--	--	--	--	--	--	--
APR									
17...	56	6.0	.4	11	225	.31	990	.07	.04
MAY									
11...	--	--	--	--	--	--	--	--	--
14...	47	5.7	.4	11	190	.26	1420	.00	.06
JUN									
11...	32	7.1	.5	12	146	.20	3900	.07	.07
22...	--	--	--	--	--	--	--	--	--
JUL									
22...	71	45	1.0	18	307	.42	3580	.07	.03
AUG									
09...	--	--	--	--	--	--	--	--	--
19...	30	14	.7	14	164	.22	1430	.25	.04
SEP									
16...	42	9.7	.6	15	184	.25	1250	.00	.05
22...	--	--	--	--	--	--	--	--	--

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT									
11...	.02	.21	.25	.02	.8	760	4	23	65
13...	--	--	--	--	--	--	--	--	--
NOV									
22...	.00	.04	.07	.00	--	600	54	226	82
25...	--	--	--	--	--	--	--	--	--
DEC									
21...	.03	.15	.22	.02	--	230	30	131	92
JAN									
23...	.01	.37	.48	.00	1.3	180	6	23	72
FEB									
15...	--	--	--	--	--	--	--	--	--
20...	.03	.33	.40	.05	--	210	8	24	70
MAR									
21...	.22	.51	.52	.01	--	--	5	14	80
30...	--	--	--	--	--	--	--	--	--
APR									
17...	.04	.12	.16	.02	1.5	--	10	44	89
MAY									
11...	--	--	--	--	--	--	--	--	--
14...	.00	.37	.43	.02	--	--	24	179	86
JUN									
11...	.05	.53	.60	.02	--	940	46	1230	94
22...	--	--	--	--	--	--	--	--	--
JUL									
22...	.09	.41	.44	.03	3.0	490	4	47	77
AUG									
09...	--	--	--	--	--	--	--	--	--
19...	.03	9.6	9.6	.00	--	2000	10	87	82
SEP									
16...	.02	.15	.20	.01	--	860	9	61	82
22...	--	--	--	--	--	--	--	--	--

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	SUSPENDED CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	SUSPENDED CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUSPENDED COBALT (CO) (UG/L)
OCT 11...	0900	4	1	3	<10	<10	0	0	0	0	<50	<50
JAN 23...	1000	3	0	4	<10	<10	0	0	0	0	<50	<50
APR 17...	1030	4	--	4	10	--	1	10	0	10	<50	--
JUL 22...	0930	23	0	25	10	10	0	10	10	0	<50	<50

DATE	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUSPENDED COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUSPENDED LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
OCT 11...	0	<10	<10	0	40	20	<100	<100	0	20	10
JAN 23...	0	<10	<10	0	130	10	<100	<99	1	--	10
APR 17...	0	<10	--	0	140	50	<100	--	0	--	10
JUL 22...	0	10	9	1	280	100	100	98	2	--	20

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUSPENDED MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	SUSPENDED SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUSPENDED ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT 11...	0	10	.0	.0	.0	1	0	1	0	0	0
JAN 23...	10	0	.0	.0	.0	0	0	0	10	0	10
APR 17...	0	10	.0	--	.0	0	0	0	10	10	0
JUL 22...	10	10	.0	.0	.0	0	0	0	30	20	6

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	5.0	1.0	1.0	1.0	2.5	3.5	9.0	11.0	14.0	15.0	12.0
2	10.5	6.0	1.0	1.0	0.5	2.5	5.0	8.0	11.5	15.0	19.0	16.5
3	10.0	7.0	1.0	1.0	1.0	1.0	5.0	8.0	11.0	14.0	16.0	13.0
4	9.5	5.0	1.5	1.0	1.0	1.0	4.5	7.5	10.5	14.0	15.0	13.5
5	8.0	5.0	1.5	0.0	1.0	2.0	10.0	5.0	11.0	13.5	15.5	13.5
6	8.0	5.0	1.0	0.5	1.0	2.0	5.5	6.5	11.5	13.5	18.0	13.5
7	7.0	5.0	3.0	0.5	0.5	3.5	5.5	7.0	11.0	13.0	15.0	13.5
8	7.0	5.0	3.0	0.5	0.5	3.0	6.0	8.5	11.5	13.0	14.5	14.0
9	8.0	5.0	3.5	0.0	1.0	3.0	5.0	8.5	12.0	12.5	14.0	15.0
10	11.0	5.0	1.0	0.0	0.5	2.0	6.0	9.0	11.0	13.0	14.0	11.0
11	9.0	4.0	1.0	0.5	2.0	1.0	5.5	7.0	11.0	13.0	15.5	12.0
12	10.5	3.0	1.0	0.5	1.5	2.0	6.0	7.0	11.5	14.0	14.5	12.5
13	7.0	2.0	1.0	1.5	2.0	3.0	5.0	8.0	11.0	14.0	15.0	15.5
14	7.0	3.0	0.5	1.0	1.5	3.5	6.5	9.0	12.0	13.0	16.0	11.5
15	7.0	2.0	1.5	1.0	1.0	1.0	4.5	8.0	12.5	13.5	15.5	13.0
16	7.0	3.0	0.5	2.5	1.0	2.5	6.5	8.0	12.0	15.0	16.0	11.5
17	7.0	5.0	0.5	3.0	2.0	2.5	8.0	6.5	12.0	15.0	15.5	12.0
18	5.0	4.0	0.5	1.5	3.0	3.0	5.0	7.0	13.0	16.0	16.5	11.0
19	4.0	5.0	0.5	2.0	2.5	1.0	5.5	6.5	12.0	16.0	15.0	11.0
20	4.0	4.0	0.0	1.0	1.5	1.5	7.0	6.0	13.0	16.0	15.0	11.5
21	4.0	2.0	0.0	0.5	2.0	2.0	10.0	8.0	12.0	15.0	16.0	10.0
22	4.0	2.0	0.0	1.5	2.5	2.5	5.0	9.0	12.0	15.0	15.0	9.5
23	5.0	2.0	0.5	1.0	2.0	3.0	7.0	9.5	12.5	16.0	14.5	8.5
24	4.0	2.0	0.5	0.0	2.0	5.0	8.0	9.0	13.5	17.0	15.0	9.0
25	5.0	2.0	1.0	0.0	0.5	5.0	8.5	9.5	14.5	15.0	13.0	8.0
26	5.0	1.5	1.0	1.0	1.5	3.0	9.0	8.0	16.0	15.0	12.5	9.0
27	5.0	1.0	1.0	1.0	1.0	4.0	9.0	4.5	15.0	16.0	11.5	9.0
28	5.0	1.0	0.5	1.0	4.0	3.0	9.0	7.5	15.5	15.0	12.0	10.0
29	5.0	1.5	0.0	0.5	---	2.0	8.0	8.0	14.0	16.5	12.0	10.5
30	5.0	1.0	0.5	0.0	---	2.0	9.0	8.0	14.0	20.0	11.5	10.0
31	5.0	---	0.5	0.5	---	2.0	---	9.0	---	15.5	10.0	---
MEAN	6.5	3.5	1.0	1.0	1.5	2.5	6.5	8.0	12.5	14.5	14.5	11.5

WTR YR 1977 MEAN 7.0 MAX 20.0 MIN 0.0

SPECIFIC CONDUCTANCE (MICRUMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	331	348	358	358	379	397	396	288	270	208	236	286
2	329	344	361	363	382	394	388	289	244	212	234	284
3	328	351	364	358	384	393	382	288	224	209	240	288
4	331	346	363	359	391	389	404	294	207	214	246	296
5	335	346	364	367	394	398	386	309	202	216	244	292
6	321	351	362	379	390	396	386	321	200	215	237	295
7	332	347	354	372	395	390	380	309	201	218	239	293
8	331	347	365	372	405	403	378	317	202	219	242	289
9	337	350	362	364	405	397	364	316	192	220	242	252
10	330	348	356	370	406	397	353	315	198	225	244	248
11	332	350	361	376	391	396	354	283	199	225	249	255
12	326	348	358	375	389	389	358	289	207	216	239	248
13	330	353	373	363	384	399	362	298	208	210	242	248
14	343	362	376	366	387	389	363	293	209	219	244	249
15	343	360	375	363	384	405	367	268	205	217	248	274
16	347	360	374	360	393	404	374	272	211	223	244	274
17	345	357	376	363	384	405	361	274	211	225	247	281
18	345	357	379	362	389	399	357	286	210	232	243	290
19	346	355	364	360	413	400	368	287	209	231	247	292
20	345	356	385	362	388	394	352	295	211	234	253	286
21	344	344	382	370	396	395	345	295	210	234	253	299
22	341	355	377	360	392	400	360	305	210	235	254	319
23	346	353	380	369	386	400	356	299	209	235	258	319
24	351	359	373	373	388	396	350	289	221	238	264	323
25	346	350	368	380	381	396	340	277	217	239	264	336
26	340	351	358	377	395	388	330	267	214	238	267	338
27	349	381	361	371	394	391	324	270	213	238	267	341
28	347	374	373	375	396	388	308	262	215	237	273	338
29	353	371	361	379	---	388	297	263	210	236	268	340
30	354	362	384	380	---	393	302	274	210	238	276	347
31	349	---	384	384	---	401	---	269	---	234	273	---
MEAN	340	355	369	369	391	396	358	289	212	225	251	294

WTR YR 1977 MEAN 320 MAX 413 MIN 192

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 11,76 0900	NOV 22,76 0930	DEC 21,76 1000	JAN 23,77 1000	FEB 20,77 1000
TOTAL CELLS/ML	760	600	230	180	210
DIVERSITY: DIVISION	0.0	0.0	1.0	1.2	0.8
.CLASS	0.0	0.0	1.0	1.2	0.8
..ORDER	0.1	0.1	1.0	1.2	0.8
...FAMILY	2.5	2.7	2.3	2.9	2.6
....GENUS	2.8	3.0	2.4	3.1	2.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	31#	17	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...ANAULACEAE										
....TERPSINOE	--	-	--	-	--	-	--	-	--	-
...COSCINODISCACEAE										
....CYCLOTELLA	7	1	6	1	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	21	3	23	4	3	1	5	3	3	1
....COCCONEIS	50	7	46	8	5	2	*	0	*	0
....RHOICOSPHENIA	--	-	12	2	--	-	*	0	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	110	14	81	14	5	2	33#	19	28	13
....EPITHEMIA	28	4	6	1	*	0	5	3	*	0
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	250#	33	93#	16	11	5	8	4	*	0
...FRAGILARIACEAE										
....FRAGILARIA	14	2	6	1	11	5	--	-	13	6
....HANNAEA	--	-	--	-	*	0	--	-	--	-
....SYNEDRA	14	2	23	4	13	6	28#	16	19	9
...GOMPHONEMATACEAE										
....GOMPHONEMA	36	5	41	7	13	6	18	10	28	13
...MERIDIONACEAE										
....MERIDION	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	64	8	75	13	13	6	13	7	63#	30
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	--	-	6	1	--	-	--	-	--	-
....NITZSCHIA	170#	22	180#	30	32	14	10	6	13	6
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	3	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	120#	52	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	26	14	41#	19
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	3	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 14,77		JUN 11,77		JUL 22,77		AUG 19,77		SEP 16,77	
TIME	1130		1030		0930		0915		1030	
TOTAL CELLS/ML	1500		940		490		2000		860	
DIVERSITY: DIVISION	0.4		0.2		1.2		0.9		0.7	
.CLASS	0.4		0.2		1.2		0.9		0.7	
..ORDER	0.8		0.7		1.2		0.9		0.9	
...FAMILY	2.7		2.9		2.4		2.2		3.1	
....GENUS	2.7		3.5		2.5		2.4		3.4	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	7	1	--	-	11	1	6	1
....OOCYSTIS	--	-	--	-	15	3	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	7	1	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	6	1
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...ANAULACEAE										
....TERPSINOE	23	2	--	-	--	-	--	-	--	-
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	28	3	--	-	--	-	--	-
....MELOSIRA	79	5	70	7	--	-	--	-	13	1
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	63	7	5	1	--	-	6	1
....COCCONEIS	100	7	49	5	15	3	78	4	57	7
....RHOICOSPHENIA	--	-	7	1	10	2	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	35	4	46	9	45	2	--	-
....CYMBELLA	120	9	70	7	--	-	89	5	76	9
....EPITHEMIA	--	-	21	2	--	-	110	6	160#	19
....RHOPALODIA	--	-	--	-	--	-	11	1	--	-
...DIATOMACEAE										
....DIATOMA	650#	45	28	3	15	3	22	1	130#	16
...FRAGILARIACEAE										
....FRAGILARIA	--	-	220#	23	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	11	1	42	4	46	9	22	1	45	5
...GOMPHONEMATACEAE										
....GOMPHONEMA	79	5	21	2	61	13	67	3	32	4
...MERIDIONACEAE										
....MERIDION	--	-	7	1	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	150	10	170#	19	25	5	67	3	95	11
....PINNULARIA	--	-	14	1	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	110	8	77	8	--	-	34	2	95	11
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	45	3	--	-	--	-	490#	25	76	9
...OSCILLATORIACEAE										
....LYNGBYA	79	5	--	-	240#	50	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	920#	47	57	7
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	7	1	5	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

APR. 17, 1977
1030 HOURS

IDENTIFICATION OF PERIPHYTON

ORGANISM NAME	COMMON NAME
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..CHLOROCOCCALES	
...SCENEDESMACEAE	
....SCENEDESMUS	
..ULOTRICHALES	
...ULOTRICHACEAE	
& ....ULOTHRIX	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
....ACHNANTHES	
....COCCONEIS	
....RHOICOSPHENIA	
...CYMBELLACEAE	
....CYMBELLA	
....EPITHEMIA	
...DIATOMACEAE	
& ....DIATOMA	
...FRAGILARIACEAE	
....FRAGILARIA	
....HANNAEA	
....SYNEDRA	
...GOMPHONEMATACEAE	
....GOMPHONEMA	
...MERIDIONACEAE	
....MERIDION	
...NAVICULACEAE	NAVICULOID
....NAVICULA	
...NITZSCHIACEAE	
....NITZSCHIA	
...SURIRELLACEAE	
....SURIRELLA	
CYANOPHYTA	BLUE-GREEN ALAGE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...OSCILLATORIACEAE	
& ....LYNGBYA	

NOTE: & - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, INVERTED MICROSCOPE

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

OCT. 11, 1976
0900 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OOCYSTACEAE	
O	....ANKISTRODESMUS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..TETRASPORALES	
	...TETRASPORACEAE	
O	....TETRASPORA	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	...ULOTRICHACEAE	
O	....ULOTHRIX	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
O	....COCCONEIS	
O	....RHOICOSPHENIA	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...DIATOMACEAE	
E	....DIATOMA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
E	....LYNGBYA	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

JULY 22, 1977
0930 HOURS

IDENTIFICATION OF PERIPHYTON

- - - NO ORGANISMS REPORTED - - -

NOTE: SAMPLING METHOD: PLASTIC SLIDES
ANALYSIS METHOD: GLASS CHAMBER(12MM CIRC), 200-X MICROSCOPE

SEP. 16, 1977
1030 HOURS

PERIPHYTON IDENTIFICATION

ORGANISM NAME	COMMON NAME
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..CHLOROCOCCALES	
...SCENEDESMACEAE	
....SCENEDESMUS	
..ULOTRICHALES	
...CHAETOPHORACEAE	
....STIGEOCLONIUM	
...ULOTRICHACEAE	
....ULOTHRIX	
..ZYGNEMATALES	
...DESMIDIACEAE	PLACODERM DESMIDS
....COSMARIUM	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
....ACHNANTHES	
....COCCONEIS	
....RHOICOSPHENIA	
...CYMBELLACEAE	
....CYMBELLA	
....EPITHEMIA	
....RHOPALODIA	
...DIATOMACEAE	
....DIATOMA	
....OPEPHORA	
...FRAGILARIACEAE	
....FRAGILARIA	
....SYNEDRA	
...GOMPHONEMATACEAE	
....GOMPHONEIS	
....GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
....NAVICULA	
...NITZSCHIACEAE	
....NITZSCHIA	
...SURIRELLACEAE	
....CYMATOPLEURA	

NOTE: * - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES. TIMED SAMPLING INTERVAL
ANALYSIS METHOD: GLASS CHAMBER(12MM CIRC), 200-X MICROSCOPE

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13023000 GREYS RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°08'35", long 110°58'34", in SW¼SE¼ sec.34, T.37 N., R.118 W. (unsurveyed), Lincoln County, Hydrologic Unit 17040103, on right bank at Bridge Campground, 3.6 mi (5.8 km) southeast of Alpine, and at mile 3.0 (4.8 km).

DRAINAGE AREA.--448 mi² (1,160 km²). Mean altitude, 8,080 ft (2,460 m).

PERIOD OF RECORD.--July to September 1917, June to September 1918, March 1937 to March 1939, October 1953 to current year. Published as Greys River near Alpine, Idaho, 1917-18 and as Greys River near Alpine, Wyo., 1937-39.

REVISED RECORDS.--WRD Idaho 1967: 1966.

GAGE.--Water-stage recorder. Altitude of gage is 5,720 ft or 1,740 m (from topographic map). July 6 to Sept. 30, 1917, and June 4 to Sept. 30, 1918, nonrecording gage and Mar. 17, 1937, to Mar. 31, 1939, water-stage recorder, at site 1.8 mi (2.9 km) downstream, and October 1953 to Sept. 22, 1965, water-stage recorder at site 1 mi (1.6 km) downstream at different datums.

REMARKS.--Records good except those for winter periods, which are fair. Less than 500 acres (202 hm²) irrigated by diversions from Greys River and tributaries above station.

AVERAGE DISCHARGE.--25 years (1938, 1954-77), 655 ft³/s (18.55 m³/s), 19.85 in/yr (504 mm/yr), 474,500 acre-ft/yr (585 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,230 ft³/s (205 m³/s) June 19, 1971 (gage height, 6.33 ft or 1.929 m); maximum gage height observed, 19.1 ft or 5.82 m (former site and datum) about Dec. 18, 1965 (ice jam); minimum discharge, 111 ft³/s (3.14 m³/s) Dec. 7, 1960 (gage height, 2.45 ft or 0.747 m, former site and datum).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 650 ft³/s (18.4 m³/s) June 5 (gage height, 2.62 ft or 0.799 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum, 135 ft³/s (3.82 m³/s) Nov. 27 (gage height, 1.17 ft or 0.357 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 24 to July 5; stage-discharge relation affected by ice
Dec. 6-8, Dec. 15 to Jan. 3)

1.2	145
2.0	460
3.0	1,070

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	393	339	244	200	180	195	176	446	331	226	200	219
2	394	339	229	210	190	190	169	426	405	226	195	215
3	439	345	244	230	190	190	159	363	463	249	192	204
4	409	331	248	215	190	185	169	347	519	252	190	201
5	393	325	272	180	190	185	186	275	600	267	185	201
6	383	280	280	160	185	200	201	271	550	255	220	197
7	379	290	290	170	185	220	219	282	546	240	200	197
8	381	310	310	175	185	210	237	286	563	235	185	193
9	377	316	285	175	190	205	267	298	584	230	179	190
10	377	306	264	170	190	200	302	382	549	225	179	190
11	373	300	250	150	195	195	298	350	477	220	178	190
12	373	278	246	165	195	190	306	321	435	215	177	193
13	372	259	252	180	200	190	302	330	403	210	175	193
14	375	278	259	190	195	185	294	346	383	205	173	193
15	376	274	260	205	190	190	249	372	372	205	171	193
16	378	322	255	220	195	195	294	341	356	200	169	204
17	372	309	250	230	210	190	347	342	337	200	166	208
18	359	292	240	210	220	185	298	320	332	200	186	208
19	351	286	230	205	210	185	263	328	323	195	201	201
20	353	279	220	200	210	180	252	327	345	195	186	201
21	353	260	210	200	230	180	252	319	342	220	179	197
22	351	270	215	195	210	200	267	332	289	250	190	197
23	358	262	220	195	200	220	306	327	286	230	197	198
24	347	253	225	195	195	205	322	334	275	310	193	201
25	363	281	230	190	195	195	334	339	263	265	260	197
26	357	251	265	190	195	190	359	335	275	250	359	190
27	340	175	240	185	195	185	376	336	267	240	306	187
28	339	169	220	180	200	185	428	341	252	230	263	183
29	346	239	200	170	---	180	372	323	245	220	245	187
30	343	263	190	160	---	174	401	303	237	210	230	203
31	334	---	180	175	---	159	---	287	---	205	226	---
TOTAL	11438	8481	7523	5875	5515	5938	8405	10331	11604	7080	6355	5931
MEAN	369	283	243	190	197	192	280	333	387	228	205	198
MAX	439	345	310	230	230	220	428	446	600	310	359	219
MIN	334	169	180	150	180	159	159	271	237	195	166	183
CFSM	.82	.63	.54	.42	.44	.43	.63	.74	.86	.51	.46	.44
IN.	.95	.70	.62	.49	.46	.49	.70	.86	.96	.59	.53	.49
AC-FT	22690	16820	14920	11650	10940	11780	16670	20490	23020	14040	12610	11760

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CAL YR 1976   TOTAL   287129   MEAN 785   MAX  3330   MIN 169   CFSM 1.75   IN 23.84   AC-FT  569500
WTR YR 1977   TOTAL    94476   MEAN 259   MAX   600   MIN 150   CFSM  .58   IN  7.84   AC-FT  187400
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13023000 GREYS RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1977.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.

INSTRUMENTATION.--Temperature recorder since May 18, 1977.

REMARKS.--No temperature record Aug. 10 to Sept. 21 due to equipment malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)
OCT 13...	1045	373	377	2.0	3.5
NOV 23...	1415	240	377	.5	.0
MAR 30...	1015	174	459	1.0	.0
MAY 10...	1400	399	247	9.0	7.5
JUN 22...	1655	296	382	27.5	16.5
AUG 09...	1515	179	407	26.5	16.0
SEP 22...	1315	198	365	6.5	6.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1			---	---	16.0	10.0	16.5	11.0	19.0	11.5	---	---
2			---	---	15.0	9.5	16.0	13.0	16.5	12.0	---	---
3			---	---	15.5	10.0	17.5	12.0	17.5	13.0	---	---
4			---	---	16.0	9.5	16.0	12.5	18.0	12.5	---	---
5			---	---	16.0	10.0	17.0	11.5	16.5	13.0	---	---
6			---	---	14.0	10.0	18.0	11.5	16.0	11.0	---	---
7			---	---	15.0	10.0	18.5	11.5	17.5	12.5	---	---
8			---	---	14.0	10.0	18.0	12.0	17.0	12.5	---	---
9			---	---	13.0	10.5	17.5	12.5	15.0	11.5	---	---
10			---	---	12.5	9.5	17.0	12.0	---	---	---	---
11			---	---	14.5	9.5	17.5	10.5	---	---	---	---
12			---	---	15.0	9.5	19.0	11.5	---	---	---	---
13			---	---	15.5	9.5	17.0	12.5	---	---	---	---
14			---	---	15.5	10.0	18.0	10.5	---	---	---	---
15			---	---	16.0	10.0	19.0	11.5	---	---	---	---
16			---	---	15.0	10.0	19.0	13.0	---	---	---	---
17			---	---	17.0	11.0	20.0	12.5	---	---	---	---
18			7.0	5.5	15.0	12.0	21.0	15.0	---	---	---	---
19			7.5	5.0	15.0	9.5	19.5	15.0	---	---	---	---
20			9.5	5.0	13.0	10.5	19.0	14.5	---	---	---	---
21			11.5	5.5	14.5	9.0	20.0	15.0	---	---	---	---
22			10.5	8.0	17.0	10.5	20.5	14.5	---	---	7.0	6.0
23			11.0	7.5	17.0	11.5	19.5	15.5	---	---	7.5	5.0
24			10.0	8.0	19.0	12.0	17.5	15.0	---	---	6.5	5.5
25			9.5	7.5	19.0	13.0	19.5	13.5	---	---	8.5	4.0
26			9.5	7.0	18.0	13.0	18.5	14.0	---	---	9.5	6.0
27			9.0	7.0	17.0	12.5	17.0	13.0	---	---	10.5	6.0
28			11.0	5.5	18.5	11.5	19.0	12.5	---	---	11.0	7.0
29			9.5	6.0	18.0	12.0	19.0	13.0	---	---	11.0	8.0
30			12.5	5.5	18.0	11.5	18.5	12.0	---	---	10.5	7.0
31			15.5	7.5	---	---	18.5	11.5	---	---	---	---
MONTH			15.5	5.0	19.0	9.0	21.0	10.5	19.0	11.0	11.0	4.0
YEAR	21.0	4.0										

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY

LOCATION.--Lat 43°04'47", long 111°02'12", in SW¼NE¼ sec.28, T.36 N., R.119 W., Lincoln County, Hydrologic Unit 17040105, on right bank 3.4 mi (5.5 km) northwest of Etna and at mile 8.0 (12.9 km).

DRAINAGE AREA.--829 mi² (2,147 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,675.78 ft (1,729.977 m) above mean sea level.

REMARKS.--Records excellent. Diversions above station for power developments, industry, municipal supply, and irrigation of about 60,500 acres (245 km²) of which about 1,000 acres (405 hm²) are below station (1966 determination). For details on adjudication of diversions, see Remarks for this station in WSP 1347.

AVERAGE DISCHARGE.--24 years, 770 ft³/s (21.81 m³/s), 557,900 acre-ft/yr (688 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,870 ft³/s (110 m³/s) June 1, 1971 (gage height, 5.30 ft or 1.615 m); minimum, 160 ft³/s (4.53 m³/s) Jan. 7, 8, 1971 (gage height, 1.53 ft or 0.466 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 914 ft³/s (25.9 m³/s) Apr. 10 (gage height, 2.77 ft or 0.844 m); minimum, 212 ft³/s (6.00 m³/s) June 6, 7 (gage height, 1.75 ft or 0.533 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	748	677	619	461	469	430	421	377	329	257	251	330
2	750	677	605	461	450	420	415	385	278	263	251	328
3	786	678	605	461	441	420	409	357	257	281	246	349
4	789	677	598	461	437	410	411	293	231	287	244	350
5	766	671	598	467	437	410	423	290	222	249	258	349
6	759	676	591	432	434	420	459	304	220	324	266	346
7	748	677	591	472	427	440	514	311	216	344	265	348
8	746	675	598	466	423	450	596	285	227	306	262	339
9	747	670	598	435	427	440	735	250	289	287	256	341
10	739	670	591	450	418	420	816	230	313	281	250	341
11	738	667	591	460	442	410	698	236	313	275	247	340
12	731	658	570	470	428	420	632	222	302	275	246	340
13	727	648	556	460	428	420	595	218	286	269	244	337
14	722	636	549	450	427	410	573	222	278	263	237	326
15	716	642	542	469	425	420	535	226	265	263	227	339
16	709	653	535	460	408	425	531	224	253	263	226	349
17	705	663	535	470	405	420	550	251	252	257	221	345
18	703	660	507	488	403	415	533	292	257	263	229	345
19	692	657	493	475	403	410	498	311	274	257	233	346
20	706	653	480	474	403	410	477	324	298	251	229	344
21	707	654	470	458	410	420	461	315	299	251	247	350
22	701	663	460	482	416	440	450	312	308	257	262	350
23	698	656	454	484	414	470	444	312	325	251	253	350
24	685	650	474	477	416	460	445	304	306	257	264	344
25	696	656	454	443	416	440	438	328	293	269	285	337
26	704	645	480	460	421	430	430	340	287	269	345	337
27	693	600	480	467	412	430	422	361	281	257	365	337
28	693	610	467	473	420	420	403	398	275	257	344	337
29	696	619	454	466	---	410	393	399	257	257	334	331
30	690	622	435	471	---	416	386	393	257	251	337	350
31	683	---	442	460	---	417	---	375	---	251	331	---
TOTAL	22365	19665	16422	14374	11660	13173	15093	9471	8248	8392	8255	10255
MEAN	721	656	530	464	424	425	503	306	275	271	266	342
MAX	789	678	619	488	469	470	816	399	329	344	365	350
MIN	683	600	435	432	403	410	386	218	216	251	221	326
AC-FT	44360	39010	32570	28510	23520	26130	29940	18790	16360	16650	16370	20340

CAL YR 1976 TOTAL 361553 MEAN 988 MAX 3680 MIN 413 AC-FT 717100
WTR YR 1977 TOTAL 157573 MEAN 432 MAX 816 MIN 216 AC-FT 312500

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.

INSTRUMENTATION.--Temperature recorder since May 17, 1977.

REMARKS.--No temperature record Aug. 30 to Sept. 19 due to equipment malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 11...	0730	738	--	8.0	1	8.7	82	220	23
13...	1220	726	558	8.5	--	--	--	--	--
NOV 22...	0800	663	--	4.0	1	9.0	23	220	23
DEC 21...	0845	598	--	.0	1	10.3	B16	240	35
JAN 23...	0830	484	--	1.0	3	10.5	B18	220	23
FEB 20...	0845	403	--	.5	1	10.4	B11	230	33
MAR 21...	0900	420	--	1.5	2	10.0	85	210	13
30...	1255	416	444	10.0	--	--	--	--	--
APR 17...	0830	563	--	8.0	10	9.2	24	220	23
MAY 14...	0930	222	--	9.0	2	8.7	48	240	27
JUN 11...	0830	313	--	10.0	1	8.4	B160	240	35
22...	1420	309	438	17.4	--	--	--	--	--
JUL 22...	0800	257	--	12.0	1	7.7	110	240	28
AUG 19...	0810	233	--	10.0	0	7.5	160	220	7
SEP 16...	0900	349	--	9.0	1	8.2	140	210	21
20...	1130	335	480	8.6	--	--	--	--	--

B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 11...	59	18	15	.4	1.2	240	0	197	30
13...	--	--	--	--	--	--	--	--	--
NOV 22...	62	17	15	.4	.9	240	0	197	33
DEC 21...	65	20	12	.3	1.4	250	0	205	31
JAN 23...	59	19	13	.4	1.6	240	0	197	24
FEB 20...	59	19	14	.4	1.2	240	0	197	34
MAR 21...	54	18	15	.5	1.9	240	0	197	32
30...	--	--	--	--	--	--	--	--	--
APR 17...	60	17	21	.6	1.6	240	0	197	36
MAY 14...	63	19	11	.3	1.4	260	0	213	36
JUN 11...	62	20	13	.4	1.4	250	0	205	29
22...	--	--	--	--	--	--	--	--	--
JUL 22...	60	23	13	.4	1.3	240	9	212	24
AUG 19...	57	19	12	.4	1.6	260	0	213	17
SEP 16...	52	20	13	.4	1.3	230	0	189	25
20...	--	--	--	--	--	--	--	--	--

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY.--Continued

WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT								
11...	16	.2	6.0	269	.37	536	.79	.00
13...	--	--	--	--	--	--	--	--
NOV								
22...	16	.3	6.8	272	.37	487	.54	.00
DEC								
21...	13	.3	7.9	280	.38	452	1.2	.01
JAN								
23...	14	.2	7.0	263	.36	344	1.2	.00
FEB								
20...	13	.2	7.3	270	.37	294	1.0	.02
MAR								
21...	2.6	.3	6.4	251	.34	285	.79	.02
30...	--	--	--	--	--	--	--	--
APR								
17...	27	.2	5.4	288	.39	438	.59	.03
MAY								
14...	15	.2	6.5	278	.38	167	.09	.01
JUN								
11...	16	.2	7.2	276	.38	233	.72	.05
22...	--	--	--	--	--	--	--	--
JUL								
22...	19	.2	6.5	273	.37	189	.25	.01
AUG								
19...	14	.2	7.1	258	.35	162	.59	.00
SEP								
16...	17	.2	7.2	252	.34	237	.54	.01
20...	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)
JUN										
11...	0830	.0	2	.00	.00	.0	.0	0	.00	.0

DATE	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDOSULFAN (UG/L)	TOTAL ENDRIN (UG/L)
JUN									
11...	.00	.0	.00	.0	.00	.00	.0	.00	.00

DATE	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)
JUN									
11...	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN									
11...	.00	.00	.00	0	0	.00	.00	.00	.00

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	17.0	11.0	15.5	9.5	16.0	9.0	---	---
2			---	---	17.0	10.5	13.5	10.5	14.5	9.5	---	---
3			---	---	17.0	10.5	16.0	10.0	14.0	10.0	---	---
4			---	---	18.0	10.5	13.5	10.0	15.0	9.5	---	---
5			---	---	18.0	11.0	15.0	10.0	13.0	10.0	---	---
6			---	---	15.5	11.0	17.0	10.0	13.5	8.5	---	---
7			---	---	15.5	11.0	17.0	10.5	15.0	10.0	---	---
8			---	---	15.0	10.5	16.5	10.5	15.5	9.5	---	---
9			---	---	14.5	11.0	16.0	10.0	15.5	9.0	---	---
10			---	---	14.5	11.0	16.0	10.0	15.5	9.0	---	---
11			---	---	16.0	11.0	16.0	9.0	16.0	9.5	---	---
12			---	---	18.0	10.5	17.0	9.5	15.5	9.0	---	---
13			---	---	17.5	11.0	15.0	10.0	15.5	9.0	---	---
14			---	---	17.5	11.0	16.0	8.5	14.0	9.5	---	---
15			---	---	17.5	10.5	17.0	9.0	15.0	9.5	---	---
16			---	---	15.5	11.0	16.5	10.0	15.5	9.5	---	---
17			9.0	8.0	18.0	11.0	17.5	9.5	14.0	9.0	---	---
18			8.5	6.5	15.5	12.0	18.5	11.5	13.0	10.0	---	---
19			8.5	6.0	16.0	10.5	17.0	11.5	15.5	9.5	---	---
20			10.5	6.5	14.0	11.0	16.0	11.0	13.5	9.5	12.0	9.0
21			12.5	7.0	15.5	10.5	16.0	11.0	13.0	9.5	10.5	8.5
22			11.5	9.0	16.5	11.5	17.5	10.5	13.0	9.5	9.5	8.0
23			11.5	8.5	17.0	10.5	16.0	11.5	15.5	9.0	10.5	7.0
24			10.5	8.5	18.0	11.0	15.0	11.0	13.0	9.5	10.0	7.5
25			10.5	8.5	18.0	11.0	16.5	10.5	11.0	9.5	9.5	7.5
26			11.5	7.5	17.5	11.0	16.5	10.5	11.5	9.0	11.5	8.0
27			10.0	8.0	16.5	10.5	14.5	9.5	12.0	9.0	12.0	7.5
28			13.5	7.0	17.5	10.0	16.5	9.5	11.0	8.5	12.5	8.5
29			11.5	8.0	16.5	10.0	16.5	10.0	11.5	9.5	12.5	9.5
30			14.5	7.5	16.5	9.5	16.0	9.0	---	---	10.5	8.0
31			16.5	9.0	---	---	16.0	9.0	---	---	---	---
MONTH			16.5	6.0	18.0	9.5	18.5	8.5	16.0	8.5	12.5	7.0
YEAR	18.5	6.0										

13032000 BEAR CREEK ABOVE RESERVOIR, NEAR IRWIN, ID

LOCATION.--Lat 43°17'00", long 111°13'17", in SE¼SE¼ sec.31, T.1 S., R.45 E., Bonneville County, Hydrologic Unit 17040104, Caribou National Forest, 0.5 mi (0.8 km) downstream from Elk Creek, 0.2 mi (0.3 km) upstream from maximum flowline of Palisades Reservoir, and 6.4 mi (10.3 km) south of Irwin.

PERIOD OF RECORD.--June to September 1977.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1977.

INSTRUMENTATION.--Temperature recorder since June 22, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)
SEP					
02...	1015	15	544	10.0	9.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	17.5	9.0	21.0	10.0	17.0	9.0
2					---	---	16.5	11.5	15.5	10.5	17.5	8.0
3					---	---	20.5	11.0	17.5	11.0	17.5	10.0
4					---	---	16.5	10.5	20.0	10.5	18.0	9.0
5					---	---	19.5	10.5	14.5	11.5	17.5	10.0
6					---	---	20.5	9.5	17.0	10.0	17.0	9.5
7					---	---	20.5	8.5	18.5	11.0	17.5	9.5
8					---	---	18.5	9.5	19.5	11.0	16.5	10.0
9					---	---	19.0	10.0	20.0	10.0	15.5	6.5
10					---	---	19.5	10.5	20.0	9.5	15.5	7.0
11					---	---	19.5	8.0	19.5	11.0	14.5	8.0
12					---	---	21.0	9.5	20.0	9.5	15.5	8.0
13					---	---	18.0	10.5	20.0	10.0	15.5	7.0
14					---	---	20.0	7.5	17.5	11.0	12.5	7.5
15					---	---	20.0	9.0	18.5	11.0	15.5	10.0
16					---	---	20.5	10.5	20.5	11.0	14.5	9.5
17					---	---	22.0	10.5	17.5	11.0	11.0	8.5
18					---	---	21.5	12.5	17.0	12.5	13.0	5.5
19					---	---	22.0	12.5	20.5	11.0	12.0	7.0
20					---	---	19.0	12.5	17.5	11.0	11.0	8.5
21					---	---	20.0	13.0	17.0	11.0	10.5	7.5
22					19.0	14.0	21.0	11.5	17.5	11.0	8.5	6.5
23					19.0	9.0	20.5	13.0	19.0	10.0	11.5	6.0
24					21.5	10.0	16.5	13.0	14.0	11.0	11.0	7.0
25					21.5	10.5	20.5	12.0	12.5	11.0	12.5	6.5
26					21.0	10.5	21.0	11.5	13.5	10.0	11.5	7.0
27					19.0	10.0	18.5	11.0	13.0	9.0	13.0	6.0
28					21.0	9.0	21.0	10.5	11.5	8.0	13.0	7.5
29					20.0	9.5	21.0	11.0	15.0	9.5	13.0	8.5
30					20.0	8.5	20.5	9.5	13.0	9.0	10.0	7.0
31					---	---	21.0	10.0	14.5	7.0	---	---
MONTH					21.5	8.5	22.0	7.5	21.0	7.0	18.0	5.5
YEAR	22.0	5.5										

13032450 PALISADES RESERVOIR NEAR IRWIN, ID

LOCATION.--Lat 43°19'49", long 111°12'20", in NW¼SE¼ sec.17, T.1 S., R.45 E., Bonneville County, Hydrologic Unit 17040104, Caribou National Forest, on left bank on spillway structure near Palisades Dam on Snake River, 3.5 mi (5.6 km) upstream from Palisades Creek, 7 mi (11.3 km) southeast of Irwin, and at mile 901.6 (1,450.7 km).

DRAINAGE AREA.--5,208 mi² (13,489 km²).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Outside staff gages attached to concrete headwalls upstream from power and outlet tunnels. Datum of gage is at mean sea level (Bureau of Reclamation datum). Datum of Geological Survey is 0.10 ft (0.030 m) lower.

REMARKS.--Reservoir is formed by earth-fill, rock-faced dam; partial storage began in October 1955; full storage began in November 1956. Capacity, 1,400,000 acre-ft (1,730 hm³) between elevations 5,372 or 1,637 m (river level at original outlet tunnels) and 5,620 ft (1,713 m). Dead storage 44,100 acre-ft (54.4 hm³) at elevation 5,452.43 ft (1,661.901 m), elevation of completed outlet tunnels. Inactive storage for minimum power head, 199,600 acre-ft (246 hm³) at elevation 5,497.5 ft (1,675.64 m). Water is used for irrigation in Snake River valley. Figures given herein represent total storage.

COOPERATION.--Reservoir elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,421,000 acre-ft (1,750 hm³) June 17, 18, 1963 (elevation, 5,621.17 ft or 1,713.333 m); minimum observed, 565 acre-ft (0.697 hm³) Jan. 31, 1956 (prior to filling of reservoir); minimum after first filling of reservoir in June 1958, 224,000 acre-ft (276 hm³) Sept. 24, 25, 1960 (elevation, 5,502.3 ft or 1,677.106 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,402,000 acre-ft (1,730 hm³) Apr. 11, 12, 13; maximum elevation, 5,620.03 ft (1,712.985 m) Apr. 11, 12; minimum, 233,000 acre-ft (287 hm³) Sept. 30 (elevation, 5,504.05 ft or 1,677.634 m).

CONTENTS. IN ACRE-FEET. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320000	1370000	1373000	1272000	1228000	1286000	1370000	1319000	954400	817200	551300	294500
2	1320000	1373000	1369000	1270000	1229000	1289000	1372000	1309000	944300	810100	543300	291200
3	1322000	1376000	1366000	1264000	1230000	1292000	1375000	1297000	935700	802900	534200	288000
4	1322000	1378000	1362000	1267000	1231000	1294000	1378000	1285000	928500	796500	524600	285200
5	1323000	1380000	1358000	1264000	1233000	1297000	1380000	1271000	922900	791700	515700	283100
6	1323000	1382000	1354000	1261000	1234000	1299000	1383000	1258000	918700	786500	506300	278000
7	1323000	1383000	1350000	1259000	1236000	1302000	1387000	1244000	915300	781300	498000	274300
8	1323000	1384000	1347000	1256000	1237000	1305000	1391000	1231000	913700	775700	490400	270800
9	1324000	1385000	1343000	1253000	1238000	1308000	1395000	1217000	913800	769900	483100	268900
10	1323000	1386000	1339000	1250000	1239000	1310000	1400000	1204000	915700	763700	474500	267700
11	1322000	1386000	1336000	1247000	1241000	1313000	1401000	1192000	917200	756900	466300	266100
12	1321000	1387000	1331000	1243000	1243000	1315000	1401000	1179000	916400	748800	457900	264800
13	1319000	1387000	1327000	1240000	1245000	1318000	1401000	1166000	914500	739900	448300	263400
14	1318000	1387000	1324000	1237000	1247000	1321000	1400000	1154000	911200	730600	437900	261800
15	1317000	1388000	1320000	1235000	1249000	1323000	1398000	1142000	908800	721600	425500	259600
16	1318000	1388000	1317000	1233000	1251000	1326000	1396000	1131000	905200	712400	412700	256500
17	1321000	1388000	1314000	1230000	1254000	1328000	1395000	1120000	901400	702400	399800	253300
18	1325000	1388000	1311000	1229000	1256000	1331000	1394000	1107000	896000	690300	386800	250200
19	1328000	1387000	1307000	1228000	1259000	1334000	1392000	1095000	890100	677900	375400	246900
20	1331000	1387000	1303000	1229000	1261000	1337000	1390000	1082000	885200	664800	363900	244100
21	1334000	1387000	1299000	1230000	1264000	1340000	1387000	1069000	880200	652200	353200	241600
22	1337000	1386000	1296000	1230000	1268000	1342000	1382000	1056000	874500	639500	343800	239100
23	1340000	1385000	1292000	1231000	1270000	1345000	1377000	1043000	868300	627200	335100	237100
24	1344000	1385000	1289000	1231000	1273000	1348000	1372000	1031000	862000	616400	328300	235700
25	1347000	1384000	1286000	1231000	1276000	1351000	1366000	1021000	856500	606900	323400	234500
26	1351000	1382000	1285000	1230000	1279000	1353000	1359000	1011000	850700	596500	320800	234200
27	1354000	1380000	1283000	1229000	1281000	1356000	1350000	1002000	844800	587000	319000	234000
28	1357000	1379000	1281000	1228000	1284000	1359000	1342000	993300	838600	579400	315500	233600
29	1360000	1377000	1279000	1227000	---	1362000	1335000	984100	832100	571400	310300	233400
30	1364000	1375000	1276000	1228000	---	1364000	1327000	975200	824700	564900	304100	233000
31	1367000	---	1274000	1227000	---	1367000	---	965200	---	558400	298400	---
MAX	1367000	1388000	1373000	1272000	1284000	1367000	1401000	1319000	954400	817200	551300	294500
MIN	1317000	1370000	1274000	1227000	1228000	1286000	1327000	965200	824700	558400	298400	233000
(†)	5617.88	5618.38	5611.91	5608.86	5612.61	5617.87	5615.36	5589.56	5677.30	5550.14	5515.24	5504.05
(‡)	+46	+8	-101	-47	+57	+83	-40	-361.8	-140.5	-266.3	-260	-65.4

CAL YR 1976............. ‡ +55
WTR YR 1977............. ‡ -1088

† Elevation, in feet, at end of month.
‡ Change in contents, in thousands of acre-feet.

13032500 SNAKE RIVER NEAR IRWIN, ID

LOCATION.--Lat 43°21'03", long 111°13'06", in NE¼NE¼ sec.7, T.1 S., R.45 E., Bonneville County, Hydrologic Unit 17040104, on right bank at Bureau of Reclamation headquarters, 1.5 mi (2.4 km) downstream from Palisades Dam, 2 mi (3.2 km) upstream from Palisades Creek, 5 mi (8 km) southeast of Irwin, and at mile 900.2 (1,448.4 km).

DRAINAGE AREA.--5,225 mi^2 (13,533 km^2).

PERIOD OF RECORD.--March to October 1935, April to October 1936, May 1949 to current year. Records for station "at Calamity Point, near Irwin" April to August 1934, April to October 1935, April to October 1936, March 1939 to September 1941 are equivalent to those for this station.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,353.00 ft (1,631.594 m) above mean sea level. Mar. 30, 1935, to Oct. 31, 1936, water-stage recorder at site 3.5 mi (5.6 km) downstream at different datum. May 1, 1949, to Mar. 22, 1950, nonrecording gage at site 1,100 ft (335 m) downstream at datum 1.9 ft (0.58 m) higher.

REMARKS.--Records excellent. Flow partly regulated by Jackson Lake (see sta 13010500) and Palisades Reservoir (see sta 13032450). Diversions from tributaries above station for irrigation in Wyoming and Idaho of about 95,300 acres or 38,570 hm^3 (1966 determination).

AVERAGE DISCHARGE.--28 years (1950-77), 6,631 ft^3/s (187.8 m^3/s), 4,804,000 acre-ft/yr (5,923 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,800 ft^3/s (901 m^3/s) June 4-6, 1956; maximum gage height, 13.31 ft (4.057 m) June 4, 1956; minimum discharge, 19 ft^3/s (0.54 m^3/s) Nov. 8, 1956 (gage height, 2.43 ft or 0.741 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in early June 1894 probably was much higher than that of June 4-6, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 12,300 ft^3/s (348 m^3/s) June 4-9; minimum discharge, 527 ft^3/s (14.9 m^3/s) Mar. 12, 14, 30 (gage height, 3.98 ft or 1.213 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

5.0	1,520	8.0	8,730
6.0	3,280	10.0	15,800
7.0	5,760	12.0	24,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3990	1520	3720	3490	1920	749	556	8040	10600	11300	8390	5080
2	3740	1510	4170	3490	1740	669	556	8990	11500	11300	8940	4630
3	3450	1510	4520	3490	1520	673	556	9730	12100	11100	9470	4410
4	3430	1740	4540	3490	1520	660	556	10100	12300	10700	9730	4420
5	3450	2010	4540	3490	1250	648	587	10300	12300	10500	9730	4640
6	3410	2030	4550	3500	1300	568	564	10300	12300	10200	9730	4630
7	3430	2480	4540	3500	1320	655	571	10300	12300	9950	9000	4630
8	3450	2530	4540	3500	1310	640	564	10300	12300	9960	8720	4620
9	3450	2520	4530	3520	1310	622	564	10300	12300	9940	8240	4450
10	3460	2520	4550	3520	1130	570	983	10300	11500	10100	8670	4560
11	3990	2520	4530	4050	1140	561	2160	10300	10800	10300	8680	4710
12	3990	2520	4540	4070	1120	562	2940	10300	10800	10800	8540	4710
13	4010	2530	4540	4010	954	563	2940	10300	10800	11300	9240	4720
14	4010	2480	4160	4020	1050	560	3210	10300	10800	11200	9570	4710
15	4010	2170	4120	3550	1010	670	3490	10300	10800	10700	10400	4720
16	2580	2520	3990	3540	897	681	3530	10300	10800	10700	10600	4700
17	1530	2970	4010	3780	808	668	3530	10200	10800	10900	10600	4610
18	1490	3010	4000	3220	799	670	3540	10600	11400	11800	10400	4510
19	1500	3020	4030	2760	625	676	3540	10800	11400	11800	9760	4420
20	1490	3030	4050	1790	571	564	3540	10800	11300	11800	9490	4210
21	1490	3030	4060	2000	616	571	3540	10700	11300	11800	9010	3800
22	1500	3020	4070	1970	639	556	4820	10800	11200	11700	8590	3710
23	1510	3030	4070	1740	655	556	5420	10800	11300	11300	8000	3460
24	1510	3020	4090	2230	624	556	5420	10500	11300	11300	7180	3060
25	1510	3030	3490	2380	660	564	5440	10300	11000	11000	6280	2800
26	1520	3270	3490	2620	625	564	6840	9980	11100	10900	5860	2340
27	1510	3290	3500	2620	625	564	7470	9740	11000	9920	5170	2280
28	1510	3270	3460	2620	619	564	7440	9740	11000	9460	5520	2300
29	1510	3520	3460	2270	---	564	7470	9750	11100	9170	6050	2290
30	1510	3540	3470	1860	---	556	7470	9740	11300	8280	6500	2300
31	1520	---	3500	2440	---	564	---	9990	---	8220	6180	---
TOTAL	80960	79160	126830	94530	28357	18808	99807	314900	340800	329400	262240	120430
MEAN	2612	2639	4091	3049	1013	607	3327	10160	11360	10630	8459	4014
MAX	4010	3540	4550	4070	1920	749	7470	10800	12300	11800	10600	5080
MIN	1490	1510	3460	1740	571	556	556	8040	10600	8220	5170	2280
AC-FT	160600	157000	251600	187500	56250	37310	198000	624600	676000	653400	520200	238900

CAL YR 1976 TOTAL 2829990 MEAN 7732 MAX 21400 MIN 1490 AC-FT 5613000
WTR YR 1977 TOTAL 1896222 MEAN 5195 MAX 12300 MIN 556 AC-FT 3761000

NOTE.--No gage-height record May 31 to June 22.

13032500 SNAKE RIVER NEAR IRWIN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1977.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.

INSTRUMENTATION.--Temperature recorder since May 17, 1977.

REMARKS.--Miscellaneous chemical data published for water year 1976. No temperature record Sept. 23-30 due to equipment malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)
OCT 28...	0814	1470	317	4.5	9.5
NOV 23...	1055	3120	308	3.5	7.5
FEB 15...	0810	1490	356	-9.0	.0
MAY 10...	1010	10060	420	12.0	4.0
AUG 08...	1150	8950	292	22.0	17.0
SEP 16...	1030	4840	--	19.5	15.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	7.0	6.0	12.0	11.0	16.5	15.0	16.0	15.0
2			---	---	7.5	6.0	12.0	11.5	15.5	14.5	16.0	15.0
3			---	---	6.5	5.5	12.5	12.0	15.5	15.0	16.0	15.0
4			---	---	7.0	6.5	13.5	11.5	15.5	15.0	16.5	15.0
5			---	---	7.0	6.5	13.0	12.0	15.5	15.0	16.0	15.5
6			---	---	7.0	6.0	13.0	12.0	15.5	15.0	16.0	15.5
7			---	---	7.0	6.0	13.0	12.0	15.5	15.0	16.0	15.5
8			---	---	7.5	6.5	13.0	12.5	17.5	14.5	15.5	14.5
9			---	---	7.5	7.0	13.5	12.5	18.0	16.5	16.0	14.5
10			---	---	8.0	7.0	13.0	12.5	17.5	16.5	15.5	14.5
11			---	---	8.0	6.5	13.5	12.5	17.5	16.5	15.5	14.5
12			---	---	8.0	7.0	14.0	12.5	18.0	16.5	15.5	14.5
13			---	---	8.5	8.0	13.5	13.0	17.5	16.5	15.5	14.0
14			---	---	8.5	8.0	14.0	13.0	17.5	16.5	15.5	14.5
15			---	---	9.0	7.0	14.0	13.0	17.5	17.0	15.5	14.5
16			---	---	9.5	8.0	14.0	13.5	17.5	16.5	15.5	14.5
17			5.0	4.5	9.0	8.0	14.0	13.5	17.5	16.5	14.5	14.0
18			5.5	5.0	9.5	8.0	14.0	13.5	18.0	17.0	15.0	14.0
19			6.0	5.0	9.5	9.0	14.5	13.5	18.0	17.5	14.5	14.0
20			5.5	5.0	10.5	9.0	14.5	14.0	18.0	17.5	14.0	13.0
21			6.0	5.0	10.5	8.5	15.0	14.0	18.0	17.5	14.0	13.0
22			6.0	5.5	10.5	9.5	14.5	14.0	18.5	17.5	13.0	13.0
23			6.5	5.0	10.5	9.5	15.0	14.0	18.0	17.0	---	---
24			5.5	5.0	10.0	6.5	15.0	14.5	17.5	17.0	---	---
25			6.0	5.0	11.0	9.5	15.0	15.0	17.5	17.0	---	---
26			6.0	5.5	10.5	10.0	15.0	14.5	17.0	16.5	---	---
27			6.5	6.0	11.0	10.0	15.5	14.5	16.5	16.0	---	---
28			7.0	6.0	11.5	10.5	15.5	15.0	16.5	16.0	---	---
29			7.0	6.0	11.5	10.5	15.5	14.5	16.5	15.5	---	---
30			7.0	6.0	12.0	11.0	16.0	14.5	16.0	15.0	---	---
31			6.5	5.5	---	---	16.5	14.5	16.0	15.0	---	---
MONTH			7.0	4.5	12.0	5.5	16.5	11.0	18.5	14.5	16.5	13.0
YEAR	18.5	4.5										

13037500 SNAKE RIVER NEAR HEISE, ID

LOCATION.--Lat 43°36'45", long 111°39'33", in SE¼SW¼ sec.5, T.3 N., R.41 E., Bonneville County, Hydrologic Unit 17040104, on left bank 850 ft (259 m) upstream from Anderson canal headgate, 2.4 mi (3.9 km) upstream from Heise, 6 mi (9.7 km) east of Ririe, 24 mi (38.6 km) upstream from Henrys Fork, and at mile 853.6 (1,373.4 km).

DRAINAGE AREA.--5,752 mi² (14,898 km²). Mean altitude, 7,770 ft (2,368 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1910 to current year. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as South Fork of Snake River near Heise.

REVISED RECORDS.--WSP 1217: Drainage area. WSP 1347: 1912.

GAGE.--Water-stage recorder. Datum of gage is 5,015.3 ft (1,528.66 m) above mean sea level. Prior to July 9, 1913, nonrecording gage and July 9, 1913, to Sept. 29, 1922, water-stage recorder, at datum 2.65 ft (0.808 m).

REMARKS.-- Records excellent. Flow partly regulated by Jackson Lake (see sta 13010500) and Palisades Reservoir (see sta 13032450). Some diurnal fluctuations during winter from powerplant operations at Palisades. Station is above all irrigation diversions from main river except Riley ditch (6,639 acre-ft or 8.18 hm³) diverted during year) which diverts 1.5 mi (2.4 km) upstream from station. Diversions from tributaries above station for irrigation in Wyoming and Idaho of about 104,000 acres or 421 km³ (1966 determination).

AVERAGE DISCHARGE.--67 years, 6,946 ft³/s (196.7 m³/s), 5,032,000 acre-ft/yr (6,204 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 60,000 ft³/s (1,700 m³/s) May 19, 1927, result of washing out of landslide on Gros Ventre River (gage height, about 16.0 ft or 4.88 m, present datum); minimum, 460 ft³/s (13.0 m³/s) Nov. 10, 12, 1956 (gage height, -0.18 ft or -0.055 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in early June 1894 was estimated as 65,000 ft³/s (1,840 m³/s) by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft³/s (371 m³/s) June 9 (gage height, 5.59 ft or 1.704 m); minimum, 902 ft³/s (25.5 m³/s) Mar. 12 (gage height, 0.76 ft or 0.232 m); minimum gage height, 0.75 ft or 0.229 m Mar. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4570	2100	4090	3760	2530	1070	968	7710	10700	11700	8570	5690
2	4490	2100	4400	3750	2170	1090	945	8700	11600	11700	8850	4940
3	4290	2100	4790	3730	2000	1040	938	9600	12300	11700	9560	4710
4	4140	2210	4910	3730	1940	1040	947	9920	12600	11300	9900	4650
5	4130	2440	4950	3700	1850	1010	978	10300	12600	11000	9920	4810
6	4140	2570	4950	3650	1680	986	1030	10300	12600	10700	9920	4880
7	4120	2750	4980	3700	1750	968	1050	10300	12500	10300	9370	4880
8	4120	2970	4970	3670	1770	1010	1160	10300	12600	10300	9050	4880
9	4120	2970	4970	3800	1750	993	1320	10300	12700	10200	8420	4680
10	4390	2970	4930	3670	1690	963	1330	10300	12100	10300	8720	4760
11	4630	2990	4930	3920	1590	911	1760	10300	11300	10500	8870	4900
12	4630	2980	4880	4110	1600	902	3190	10300	11200	10800	8710	4990
13	4630	2990	4890	4080	1450	918	3210	10300	11200	11600	9130	4980
14	4640	2990	4640	4090	1470	909	3360	10300	11100	11600	9540	4980
15	4470	2690	4500	3840	1490	931	3580	10300	11100	11200	10400	5020
16	3740	3010	4380	3650	1430	1030	3730	10400	11100	11100	10800	5000
17	2330	3220	4350	3650	1280	1020	3770	10400	11100	11100	10800	4980
18	2090	3430	4340	3620	1200	1020	3730	10700	11400	12100	10800	4800
19	2060	3440	4360	3150	1150	1030	3720	11000	12000	12200	10200	4780
20	2060	3470	4340	2500	1120	995	3700	11000	11700	12200	9730	4580
21	2050	3460	4340	2230	1120	920	3720	11100	11700	12200	9400	4230
22	2060	3460	4320	2460	1090	962	4370	11100	11700	12200	9000	4010
23	2060	3470	4340	2270	989	1020	5560	11100	11700	11700	8460	3910
24	2060	3480	4380	2310	994	997	5550	11000	11700	11800	7670	3420
25	2080	3510	4010	2580	1000	983	5520	10700	11500	11500	6670	3310
26	2090	3620	3810	2750	1020	964	6210	10600	11500	11300	6290	2780
27	2070	3690	3790	2820	977	965	7380	10200	11500	10600	5540	2670
28	2040	3720	3790	2810	994	970	7390	10200	11500	9770	5630	2660
29	2060	3850	3730	2710	---	960	7370	10200	11600	9530	6070	2660
30	2080	3990	3730	2380	---	944	7370	10100	11700	8710	6500	2690
31	2080	---	3760	2360	---	945	---	10300	---	8440	6490	---
TOTAL	100520	92640	137550	101450	41094	30466	104856	319330	351600	341350	268980	130230
MEAN	3243	3088	4437	3273	1468	983	3495	10300	11720	11010	8677	4341
MAX	4640	3990	4980	4110	2530	1090	7390	11100	12700	12200	10800	5690
MIN	2040	2100	3730	2230	977	902	938	7710	10700	8440	5540	2660
AC-FT	199400	183800	272800	201200	81510	60430	208000	633400	697400	677100	533500	258300
MEAN†	4062	3252	2893	2674	2712	2612	3351	5056	7451	3590	2686	2453
AC-FT†	249800	193500	177900	164400	150610	160630	199400	310900	443400	220800	165200	146000

CAL YR 1976 TOTAL 3090320 MEAN 8443 MAX 24200 MIN 2040 AC-FT 6130000 MEAN† 8485 AC-FT† 6142900
WTR YR 1977 TOTAL 2020066 MEAN 5534 MAX 12700 MIN 902 AC-FT 4007000 MEAN† 3567 AC-FT† 2582700

† Adjusted for storage in Jackson Lake and Palisades Reservoir; no account taken for time of travel between reservoirs and Heise gaging station.

13037500 SNAKE RIVER NEAR HEISE, ID--Continued
(Irrigation network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1953 to September 1976.
INSTRUMENTATION.--Temperature recorder since Nov. 10, 1972.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 20°C Aug. 6, 7, 1970; minimum daily, 0.0°C on many days during winter periods. periods.
REMARKS.--No daily water temperatures available due to equipment malfunction and probe out of water.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
06...	0740	4140	367	7.5	1.0	11.0	1	170	39
NOV									
04...	0745	2080	412	7.3	2.0	8.0	0	200	69
DEC									
08...	0815	4970	376	7.6	-1.0	5.5	1	180	57
08...	1355	4990	374	--	6.5	5.5	3	--	--
JAN									
12...	0900	4300	326	7.8	-11.0	.0	3	190	34
24...	1430	2210	471	--	-6.5	1.0	0	--	--
FEB									
25...	0830	980	584	7.7	-4.0	3.0	3	290	77
MAR									
23...	0820	850	601	8.3	3.0	4.0	--	270	73
APR									
05...	1212	951	573	--	16.0	9.5	0	--	--
13...	0820	3140	454	7.4	7.5	4.5	0	210	54
27...	1015	7390	523	--	11.0	4.0	0	--	--
MAY									
23...	0920	11400	394	8.1	--	6.0	--	190	51
JUN									
10...	1045	12000	366	--	15.5	8.5	2	--	--
28...	1210	12100	221	8.2	26.0	11.5	0	180	53
JUL									
19...	1145	11800	320	--	20.5	15.0	1	--	--
29...	0930	16400	468	7.8	25.0	16.0	0	140	25
AUG									
23...	1000	13200	313	7.3	18.5	15.5	0	160	53
SEP									
01...	1450	5860	367	--	20.0	16.0	0	--	--
20...	1020	4440	355	7.6	13.5	12.5	1	170	47

13037500 SNAKE RIVER NEAR HEISE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT									
06...	48	12	11	12	.4	2.0	160	0	131
NOV									
04...	56	15	15	14	.5	2.4	160	0	131
DEC									
08...	50	13	11	12	.4	1.9	150	0	123
08...	--	--	--	--	--	--	--	--	--
JAN									
12...	53	15	11	11	.3	1.9	190	0	156
24...	--	--	--	--	--	--	--	--	--
FEB									
25...	85	19	23	15	.6	3.5	260	0	213
MAR									
23...	75	21	25	16	.7	3.9	240	0	197
APR									
05...	--	--	--	--	--	--	--	--	--
13...	60	15	14	12	.4	2.2	190	0	156
27...	--	--	--	--	--	--	--	--	--
MAY									
23...	55	13	11	11	.3	1.8	170	0	139
JUN									
10...	--	--	--	--	--	--	--	--	--
28...	49	13	9.6	10	.3	1.8	150	0	120
JUL									
19...	--	--	--	--	--	--	--	--	--
29...	40	9.8	11	14	.4	2.0	140	0	115
AUG									
23...	46	10	15	17	.5	3.2	130	0	107
SEP									
01...	--	--	--	--	--	--	--	--	--
20...	47	12	15	16	.5	2.6	150	0	123

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT									
06...	43	14	.3	8.1	217	.30	2430	.02	.00
NOV									
04...	58	21	.5	8.0	255	.35	1430	.00	.01
DEC									
08...	49	12	.3	9.2	221	.30	2970	.22	.00
08...	--	--	--	--	--	--	--	--	--
JAN									
12...	53	15	.4	8.2	252	.34	2930	.18	.01
24...	--	--	--	--	--	--	--	--	--
FEB									
25...	82	34	.4	7.2	389	.53	1030	1.5	.00
MAR									
23...	88	36	.4	7.4	378	.51	868	.79	.00
APR									
05...	--	--	--	--	--	--	--	--	--
13...	66	18	.4	9.3	280	.38	2370	.28	.03
27...	--	--	--	--	--	--	--	--	--
MAY									
23...	58	9.9	.4	7.5	242	.33	7450	.29	.01
JUN									
10...	--	--	--	--	--	--	--	--	--
28...	48	8.4	.4	8.5	223	.30	7290	2.4	.00
JUL									
19...	--	--	--	--	--	--	--	--	--
29...	36	7.7	.5	11	187	.25	8530	.05	.01
AUG									
23...	42	14	.6	11	206	.28	7340	.09	.02
SEP									
01...	--	--	--	--	--	--	--	--	--
20...	49	17	.6	9.9	228	.31	2730	.14	.01

13038000 DRY BED NEAR RIRIE, ID

LOCATION.--Lat 43°38'21", long 111°42'55", in NE¼NW¼ sec.35, T.4 N., R.40 E., Jefferson County, Hydrologic Unit 17040201, on right bank 30 ft (9.1 m) downstream from county road bridge, 1.3 mi)2.1 km) downstream from head, and 2.7 mi (4.3 km) east of Ririe.

PERIOD OF RECORD.--1923-27 and miscellaneous measurements during 1970-72 (formerly published as Great Feeder Canal), October 1976 to current year (irrigation seasons only prior to 1977).

GAGE.--Water-stage recorder. Altitude of gage is 4,985 ft or 1,520 m (from topographic map).

REMARKS.--Records good except those for winter period, which are fair. Flow from Snake River regulated by headgates 1.3 mi (2.09 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,740 ft³/s (134.2 m³/s) June 21, 1925 (gage height, 7.56 ft or 2.304 m, former site and datum); minimum, no flow at times during periods of no record 1923-27.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 3,780 ft³/s (107.0 m³/s) May 2 (gage height, 9.55 ft or 2.911 m); minimum daily, 14 ft³/s (0.396 m³/s) Apr. 8, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1910	1260	365	228	208	260	110	3410	3270	3260	2970	2480
2	2040	1260	365	227	200	292	110	3630	3440	3270	3170	2150
3	2100	1250	360	228	192	143	110	3710	3480	3270	3210	2080
4	2070	1160	360	228	190	140	110	3710	3370	3250	3140	1990
5	2080	1190	360	230	187	143	110	3650	3360	3220	2240	2270
6	2090	1280	360	235	185	145	110	3430	3360	3210	1730	2400
7	2090	1320	360	228	184	145	54	3400	3330	3180	1690	2410
8	2090	1560	360	244	183	148	14	3410	3330	3190	2020	2140
9	2100	1810	360	235	182	148	14	3410	3330	3210	2080	1940
10	2170	1790	365	220	181	151	14	3390	3250	3230	2680	2050
11	2250	1800	355	230	177	135	18	3390	3180	3260	2750	2150
12	1960	1570	357	238	176	140	32	3360	3170	3560	2570	2040
13	1770	1780	357	244	174	140	31	3330	3170	3680	2370	2000
14	1780	1790	354	242	172	138	32	3320	3160	3630	2400	1950
15	1780	1660	348	237	172	138	221	3300	3140	3230	2610	1850
16	1440	1780	346	233	171	118	323	3300	3150	3040	2960	1800
17	1150	1800	345	230	169	86	327	3260	3200	3040	3010	1800
18	1150	1000	342	230	167	86	328	3250	3250	3510	3050	1800
19	1150	400	343	222	107	98	328	3180	3300	3630	2640	1800
20	1200	370	336	210	63	145	430	3120	3250	3610	2880	1800
21	1340	370	252	207	63	145	717	3120	3240	3600	3080	1800
22	1480	370	244	211	63	118	948	3100	3250	3210	3170	1800
23	1470	370	243	205	62	65	1160	3100	3250	3010	3170	1950
24	1470	370	245	199	114	70	1640	3070	3260	2970	3080	1900
25	1490	365	237	211	154	73	2040	2900	3230	2920	2640	1950
26	1480	365	234	211	151	106	2340	2780	3250	3220	2250	1800
27	1350	365	233	213	148	108	2780	2750	3240	3400	2060	1700
28	1250	365	233	214	148	110	2920	2730	3240	3270	2180	1670
29	1250	365	230	211	---	110	3120	2700	3250	2860	2740	1600
30	1250	365	228	209	---	108	3290	2870	3250	2580	2970	1600
31	1250	---	232	207	---	110	---	3080	---	2490	2960	---
TOTAL	51450	31500	9709	6917	4343	4062	23781	100160	97950	100010	82470	58670
MEAN	1660	1050	313	223	155	131	793	3231	3265	3226	2660	1956
MAX	2250	1810	365	244	208	292	3290	3710	3480	3680	3210	2480
MIN	1150	365	228	199	62	65	14	2700	3140	2490	1690	1600
AC-FT	102100	62480	19260	13720	8610	8060	47170	198700	194300	198400	163600	116400

WTR YR 1977 TOTAL 571022 MEAN 1564 MAX 3710 MIN 14 AC-FT 1133000

13038380 DRY BED NEAR LEWISVILLE, ID

LOCATION.--Lat 43°42'41", long 112°02'19", in SE¼NW¼NW¼ sec.6, T.4 N., R.38 E., Jefferson County, Hydrologic Unit 17040201, on right bank 1.1 mi (1.8 km) northwest of Lewisville and at mile 7.3 (11.7 km).

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,775 ft or 1,458 m (from topographic map).

REMARKS.--Records good. Flow regulated at the head (see sta 13038000). Considerable diversions for irrigation above station during irrigation season.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 955 ft³/s (27.0 m³/s) July 24, 1977 (gage height, 7.42 ft or 2.262 m); minimum, 5.4 ft³/s (0.15 m) Apr. 11, 12, 1977 (gage height, 4.88 ft or 1.487 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 955 ft³/s (27.0 m³/s) July 24 (gage height, 7.42 ft or 2.262 m); minimum, 5.4 ft³/s (0.15 m) Apr. 11, 12 (gage height, 4.88 ft or 1.487 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	304	176	103	73	27	6.1	396	202	437	469	744
2	---	299	186	96	70	157	5.8	473	255	459	439	625
3	---	293	185	105	67	57	5.8	512	314	410	541	532
4	---	270	188	98	65	16	5.7	522	293	367	587	511
5	---	202	182	91	63	13	5.7	555	248	348	682	297
6	---	218	180	80	61	12	5.7	601	235	270	597	290
7	---	225	190	86	59	11	5.7	516	210	269	603	274
8	---	270	185	74	58	11	5.7	573	177	332	494	305
9	---	469	181	69	56	10	5.8	561	171	353	383	329
10	---	449	179	47	54	9.5	5.7	597	206	218	405	328
11	---	454	179	69	52	9.2	5.7	659	294	242	457	341
12	---	458	177	80	50	8.9	5.7	648	347	433	463	358
13	---	493	182	86	49	9.0	5.7	458	379	407	588	280
14	---	495	180	90	47	8.5	6.0	394	363	507	610	276
15	---	474	173	90	46	8.0	5.8	410	376	511	583	246
16	---	516	170	90	45	7.8	13	437	347	576	595	242
17	---	578	168	88	44	7.9	37	489	333	419	642	233
18	---	228	170	88	43	7.4	37	513	352	401	674	206
19	---	220	173	88	42	7.5	35	593	400	404	696	226
20	---	203	170	88	41	6.8	34	659	368	410	658	194
21	---	199	160	87	15	6.4	81	684	376	425	879	177
22	---	194	148	87	14	6.4	191	686	380	513	843	189
23	---	190	139	87	14	6.4	179	703	380	689	470	210
24	---	203	140	87	14	6.6	201	658	360	843	415	215
25	---	190	135	87	17	6.1	330	619	374	747	438	193
26	---	180	128	85	17	6.4	196	489	392	789	419	183
27	413	170	124	83	17	6.6	292	444	396	738	467	167
28	323	160	120	82	19	6.0	490	386	438	666	348	146
29	313	147	113	79	---	6.0	323	317	441	691	494	145
30	308	144	106	77	---	6.0	285	250	440	679	660	158
31	303	---	100	75	---	6.0	---	193	---	589	754	---
TOTAL	---	8895	4987	2627	1212	473.4	2810.6	15495	9847	15142	17353	8620
MEAN	---	297	161	84.7	43.3	15.3	93.7	516	328	488	560	287
MAX	---	578	190	105	73	157	490	703	441	843	879	744
MIN	---	144	100	47	14	6.0	5.7	193	171	218	348	145
AC-FT	---	17640	9890	5210	2400	939	[illegible]	31730	19530	30030	34420	17100

13039500 HENRYS FORK NEAR LAKE, ID

LOCATION.--Lat 44°35'42", long 111°20'57", in NE¼SW¼ sec.26, T.15 N., R.43 E., Fremont County, Hydrologic Unit 17040202, on left bank 0.2 mi (0.3 km) downstream from Henrys Lake Dam, 5.4 mi (8.7 km) south of former Lake Post Office, and at mile 117.1 (188.4 km).

DRAINAGE AREA.--99.3 mi² (257.2 km²) including 6.2 mi² (16.1 km²) of Dry Creek basin.

PERIOD OF RECORD.--May 1920 to current year (prior to October 1929, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,450.62 ft (1,966.149 m) above mean sea level, levels by Bureau of Reclamation (Corps of Engineers bench mark). Prior to September 1922, nonrecording gage at site 3 mi (4.8 km) downstream and below mouth of Dry Creek at different datum.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Henrys Lake (see sta 13039000). Since 1923, floodwaters of Dry (Tygee) Creek have been diverted at times into Henrys Lake (some diverted during 1976).

AVERAGE DISCHARGE.--48 years (1930-77), 53.3 ft³/s (1.509 m³/s), 38,620 acre-ft/yr (47.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 907 ft³/s (25.7 m³/s) June 13, 1926 (gage height, 5.40 ft or 1.646 m); no flow for part of each day Sept. 17, 18, 1952, Sept. 5, 7-30, Oct. 1, 2, 1966. Outflow from Henrys Lake was reported to have ceased entirely late in summer of 1889.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 313 ft³/s (8.86 m³/s) July 22 (gage height, 2.33 ft or 0.710 m); no flow Sept. 18-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	43	37	12	12	14	6.0	16	45	177	290	17
2	49	44	37	12	12	14	6.0	15	39	225	292	17
3	52	44	37	12	12	14	6.5	15	39	223	294	18
4	51	45	37	12	12	14	7.0	16	37	222	297	18
5	51	46	37	12	12	14	8.5	17	28	222	294	18
6	52	47	37	12	12	14	10	21	27	239	294	19
7	51	47	37	12	12	14	11	30	28	257	297	19
8	51	48	37	12	12	14	12	36	29	256	297	25
9	50	48	37	12	12	14	13	37	36	255	297	39
10	51	48	36	12	12	14	13	35	47	255	264	39
11	52	49	36	12	12	10	13	36	72	253	198	39
12	51	49	36	12	12	4.9	13	37	93	253	198	39
13	52	47	36	12	12	5.0	13	33	92	253	202	39
14	52	48	36	12	12	5.0	13	36	90	253	202	39
15	52	47	36	12	12	5.0	13	58	79	253	204	37
16	52	47	36	12	12	5.0	13	56	82	254	206	26
17	54	48	36	12	12	5.0	13	57	83	255	208	10
18	51	48	24	12	13	5.0	12	60	81	256	208	.00
19	50	44	12	12	13	5.0	12	60	77	257	211	.00
20	51	36	12	12	13	5.0	12	59	74	268	163	.00
21	51	36	12	12	13	5.0	12	59	70	311	54	.00
22	50	36	12	12	13	5.0	12	57	115	311	50	.00
23	50	37	12	12	13	6.0	13	56	234	299	50	.00
24	49	37	12	12	13	8.0	13	55	224	285	49	.00
25	49	39	12	12	13	9.0	14	54	214	287	50	.00
26	50	38	12	12	13	8.0	15	52	206	287	50	.00
27	47	38	12	12	13	7.0	14	52	197	287	43	.00
28	44	38	12	12	13	6.0	16	53	188	287	18	.00
29	44	38	12	12	--	6.0	17	51	180	290	18	.00
30	44	38	12	12	---	6.0	16	49	173	292	18	.00
31	43	---	12	12	---	6.0	---	48	---	292	18	---
TOTAL	1546	1298	801	372	347	266.9	367.0	1316	2979	8114	5334	458.00
MEAN	49.9	43.3	25.8	12.0	12.4	8.61	12.2	42.5	99.3	262	172	15.3
MAX	54	49	37	12	13	14	19	60	234	311	297	39
MIN	43	36	12	12	12	4.9	6.0	15	27	177	18	.00
AC-FT	3070	2570	1590	738	688	529	728	2610	5910	16090	10580	908

CAL YR 1976 TOTAL 22570.00 MEAN 61.7 MAX 156 MIN 12 AC-FT 44770
WTR YR 1977 TOTAL 23198.90 MEAN 63.6 MAX 311 MIN .00 AC-FT 46020

13042000 ISLAND PARK RESERVOIR NEAR ISLAND PARK, ID

LOCATION.--Lat 44°25'11", long 111°23'50", in NE¼SE¼ sec.29, T.13 N., R.43 E., Fremont County, Hydrologic Unit 17040202, Targhee National Forest, in gatehouse shaft at Island Park Dam on Henrys Fork, 0.5 mi (0.8 km) upstream from Buffalo River, 1.3 mi (2.1 km) west of Island Park Post Office, and at mile 91.7 (147.5 km).

DRAINAGE AREA.--481 mi² (1,246 km²).

PERIOD OF RECORD.--November 1938 to current year.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Prior to Aug. 9, 1976, electric tape gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earth-fill rock-faced dam. Storage began Nov. 15, 1938. Capacity, 127,300 acre-ft (157 hm³) between elevations 6,239 ft or 1,901.6 m (normal low-water level with outlet gates open) and 6,302 ft or 1,920.8 m (crest of spillway). Natural flow passing through reservoir when outlet gates are open limits withdrawal of storage to elevation 6,230 ft or 1,898.9 m (sill of lower outlet). Dead storage negligible. Water is used for irrigation of lands in Fremont-Madison irrigation district between Ashton and Rexburg. Figures given herein represent usable contents.

COOPERATION.--Reservoir elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 143,500 acre-ft (177 hm³) May 16, 1971 (elevation, 6,304.01 ft or 1,921.462 m); minimum after first filling of reservoir in May 1939, 5,280 acre-ft (6.51 hm³) Sept. 29, 1966 (elevation, 6,260.77 ft or 1,908.283 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 134,600 acre-ft (166 hm³) Apr. 17, (elevation, 6,302.93 ft or 1,921.133 m); minimum observed, 10,900 acre-ft (13.44 hm³) Sept. 24 (elevation, 6,268.80 ft or 1,910.730 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

6,265	7,800	6,290	54,800
6,270	12,100	6,295	79,600
6,275	17,900	6,300	112,200
6,280	25,800	6,304	143,400
6,285	37,600		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 0700

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50100	80500	95400	100600	109900	122700	132500	133600	130700	108900	59600	19300
2	50100	81600	95500	101200	110300	123200	132400	133500	130300	107000	58000	18800
3	50000	83000	95600	101800	110700	124400	132300	133600	130100	104500	56100	18300
4	50000	83900	95700	102000	111000	124700	132400	133000	129700	102900	54100	17800
5	50200	85100	95800	102300	111400	124900	132600	133300	129400	101600	51300	17100
6	51000	86200	96000	102300	111700	125300	132600	133600	129000	100200	49100	16200
7	52200	87200	96200	102500	111900	125900	132700	133600	128500	98200	46700	15400
8	53500	88300	96500	102700	112200	126500	133200	134100	128800	96500	44500	14600
9	54800	89200	96600	102800	112600	127000	133800	133800	128300	95000	42100	13800
10	56000	90300	96600	103100	113000	127700	134200	133600	128300	93400	39600	13400
11	57200	91000	96800	103300	113200	128800	134200	133400	128700	91800	37400	12900
12	58400	91500	97000	103600	113600	129100	134100	133400	128800	90100	35800	12400
13	59500	91700	97200	104000	113900	129500	134200	133200	128400	88300	34300	11900
14	60700	91900	97400	104300	114200	129800	134500	132800	128100	86700	32900	11400
15	61800	92100	97700	104600	114600	130200	134500	132600	128100	85000	31400	11100
16	63000	94400	97700	105100	114900	130400	134600	132600	127900	83200	30000	11000
17	64000	92600	98000	105400	115500	130600	134600	132600	127400	81400	28600	10900
18	65400	93000	98100	105800	116000	131000	134500	132600	126600	79800	27600	11000
19	66100	93300	98400	106000	116700	131400	134300	132700	125200	78100	27000	11200
20	67300	93600	98500	106300	117100	131500	134200	132900	124100	76500	26300	11100
21	68400	93800	98700	106500	117700	131800	134000	132900	123200	74900	26000	11100
22	69600	94100	98800	106900	118300	132000	134100	132700	121800	73200	25700	11000
23	70700	94200	99100	107200	118800	132200	133900	132700	120400	71500	25000	11000
24	71900	94500	99300	107400	119300	132300	134000	132500	119400	70300	24300	10900
25	73000	94600	99500	107700	119900	132300	134000	132400	118100	69100	23500	11000
26	74100	94600	99900	108000	120500	132200	133800	132100	116700	67700	22800	11000
27	75100	94800	100000	108200	121300	132400	133900	132000	115500	66300	22900	11000
28	76400	94800	100200	108500	121900	132400	133800	131800	114100	64800	22300	11000
29	77300	95000	100400	108800	---	132300	133800	131200	112400	63300	21400	11000
30	78400	95200	100600	109200	---	132200	133800	131200	110700	62100	20500	11100
31	79500	---	100700	109600	---	132300	---	131000	---	61100	19800	---
MAX	79500	95200	100700	109600	121900	132400	134600	134100	130700	108900	59600	19300
MIN	50000	80500	95400	100600	109900	122700	132300	131000	110700	61100	19800	10900
(†)	6294.98	6297.52	6298.35	-	6301.30	6302.64	6302.82	6302.47	6299.78	6291.45	6276.35	6268.99
(‡)	+29300	+15700	+5500	+8900	+12300	+10400	+1500	-2800	-20300	-49600	-41300	-8700

CAL YR 1976............ ‡ -7500
WTR YR 1977............ ‡ -39000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13042500 HENRYS FORK NEAR ISLAND PARK, ID

LOCATION.--Lat 44°24'59", long 111°23'41", in SW¼SW¼ sec.28, T.13 N., R.43 E., Fremont County, Hydrologic Unit 17040202, Targhee National Forest, on left bank 0.2 mi (0.3 km) downstream from Island Park Dam, 0.2 mi (0.3 km) upstream from Buffalo River, 1 mi (1.6 km) southwest of Island Park Post Office, and at mile 91.5 (147.2 km).

DRAINAGE AREA.--481 mi² (1,246 km²). Mean altitude, 7,080 ft (2,160 m).

PERIOD OF RECORD.--January 1933 to current year.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,225 ft or 1,897 m (from river-profile map). Prior to May 15, 1935, nonrecording gage at site about 0.8 mi (1.3 km) upstream at different datum. May 15 to Nov. 30, 1935, water-stage recorder at site 1,000 ft (305 m) downstream at different datum.

REMARKS.--Records good. Flow regulated by Henrys Lake (see sta 13039000) and Island Park Reservoir (see sta 1304200). Diversions above station for irrigation of about 15,500 acres or 6,270 hm² (1966 determination); a considerable portion of which consists of partly subirrigated meadows.

AVERAGE DISCHARGE.--44 years, 599 ft³/s (16.96 m³/s), 434,000 acre-ft/yr (535 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,770 ft³/s (78.4 m³/s) Apr. 26, 1946 (gage height, 6.15 ft or 1.875 m); minimum daily, 1 ft³/s (0.028 m³/s) Nov. 16 to Dec. 7, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,170 ft³/s (61.5 m³/s) Aug. 5 (gage height, 5.61 ft or 1.710 m); minimum, 7.5 ft³/s (0.212 m³/s) Oct. 9, Nov. 4, 5, 6 (gage height, 1.44 ft or 0.439 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	650	9.4	517	417	293	177	438	524	705	1560	1560	739
2	657	8.3	520	413	280	176	437	531	677	1580	1720	728
3	657	8.3	518	401	280	176	435	528	671	1580	1900	732
4	652	7.8	516	398	280	176	433	523	660	1580	2090	803
5	495	7.5	509	398	284	176	435	510	643	1580	2170	921
6	248	7.5	516	398	280	172	444	530	669	1570	2160	937
7	37	8.3	513	398	280	172	461	584	675	1570	2130	920
8	9.0	9.1	514	398	280	172	502	580	667	1560	2110	887
9	13	8.8	511	398	280	176	578	566	651	1560	2100	833
10	16	9.4	511	399	275	187	631	556	655	1560	1950	776
11	15	135	511	407	275	172	630	623	653	1550	1850	756
12	16	459	516	380	275	182	617	625	655	1550	1710	740
13	16	518	459	338	276	214	619	591	648	1550	1520	733
14	16	509	426	338	252	252	670	566	633	1550	1510	730
15	15	506	427	343	233	282	687	554	648	1550	1500	651
16	15	501	427	347	211	306	681	546	702	1550	1480	546
17	17	499	427	342	197	309	707	566	913	1550	1330	500
18	15	496	425	342	193	276	696	571	1000	1550	1150	497
19	14	495	422	342	193	292	662	574	1000	1550	1010	504
20	13	488	422	342	193	319	628	595	1050	1530	894	509
21	12	481	427	342	193	340	602	591	1090	1550	904	515
22	11	476	425	347	190	359	582	577	1160	1540	939	518
23	11	493	422	347	190	375	570	586	1200	1540	932	539
24	11	506	422	347	190	393	560	631	1210	1550	926	511
25	11	507	422	347	181	410	557	656	1220	1540	948	489
26	9.4	503	416	324	172	408	557	688	1220	1530	831	497
27	9.4	499	417	319	172	416	548	768	1280	1540	824	498
28	9.4	496	417	319	174	425	546	740	1410	1530	971	491
29	8.3	494	415	315	---	425	538	688	1440	1480	967	496
30	8.8	513	412	313	---	412	526	656	1490	1220	957	518
31	9.4	---	412	315	---	415	---	712	---	1460	762	---
TOTAL	3696.7	9658.4	14214	11179	6572	8742	16977	18536	27295	47660	43805	19514
MEAN	119	322	459	361	235	282	566	598	910	1537	1413	650
MAX	657	518	520	417	293	425	707	768	1490	1580	2170	937
MIN	8.3	7.5	412	313	172	172	433	510	633	1220	762	489
AC-FT	7330	19160	28190	22170	13040	17340	33670	36770	54140	94530	86890	38710

CAL YR 1976 TOTAL 263744.1 MEAN 721 MAX 1920 MIN 7.5 AC-FT 523100
WTR YR 1977 TOTAL 227849.1 MEAN 624 MAX 2170 MIN 7.5 AC-FT 451900

13046000 HENRYS FORK NEAR ASHTON, ID

LOCATION.--Lat 44°04'30", long 111°29'58", in SE¼SE¼ sec.28, T.9 N., R.42 E., Fremont County, Hydrologic Unit 17040203, on right bank 0.3 mi (0.5 km) downstream from powerplant, 2.6 mi (4.2 km) west of Ashton, and at mile 44.7 (71.9 km).

DRAINAGE AREA.--1,040 mi^2 (2,694 km^2): Mean altitude, 6,710 ft (2,050 m).

PERIOD OF RECORD.--April 1890 to June 1891, August 1902 to June 1909, April 1920 to current year (seasonal records only 1920-26). Monthly discharge only for some periods, published in WSP 1317. Published as Henrys Fork in canyon, above Fall River 1890-91, and as North Fork of Snake River near Ora 1902-9.

REVISED RECORDS.--WSP 1217: Drainage area. WSP 1347: 1890-91.

GAGE.--Water-stage recorder. Altitude of gage is 5,095 ft or 1,553 m (from river-profile map). April 1890 to June 1891, nonrecording gage at site 6 mi (9.7 km) downstream at different datum. August 1902 to Apr. 15, 1921, nonrecording gage and Apr. 16, 1921, to May 3, 1930, water stage recorder at site 1.5 mi (2.4 km) downstream at different datum.

REMARKS.--Records good. Diurnal fluctuation caused by powerplant above station. Flow regulated by Henrys Lake (see sta 13039000) and Island Park Reservoir (see sta 13042000). Diversions above station for irrigation of about 24,500 acres or 9,920 hm^2 (1966 determination).

AVERAGE DISCHARGE.--57 years (1903-8, 1927-77), 1,451 ft^3/s (41.09 m^3/s), 1,051,000 acre-ft/yr (1,300 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,220 ft^3/s (176 m^3/s) May 7, 1925 (gage height, 3.11 ft or 0.948 m, site and datum then in use); minimum, 53 ft^3/s (1.50 m^3/s) Sept. 20, 1960 (gage height, 5.45 ft or 1.661 m); minimum daily, 171 ft^3/s (4.84 m^3/s) Oct. 18, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,010 ft^3/s (114 m^3/s) Aug. 6 (gage height, 7.87 ft or 2.399 m); minimum daily, 323 ft^3/s (9.15 m^3/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1760	909	1280	1220	1180	1000	1250	1340	1370	2150	2250	1910
2	1810	907	1440	1150	1090	993	1250	1380	1340	2260	2380	1900
3	1930	913	1300	1310	1080	993	1250	1350	1310	2280	2780	1860
4	1870	890	1290	1280	1120	972	1260	1380	1310	2300	3100	1860
5	1810	916	1290	1210	1120	984	1260	1350	1290	2300	3470	2020
6	1500	907	1270	1110	1100	998	1300	1330	1300	2220	3560	2100
7	1150	900	1320	1230	1090	990	1350	1450	1350	2210	3560	2110
8	929	889	1310	1130	1100	1000	1410	1390	1380	2210	3630	2100
9	899	918	1290	1010	1120	1030	1560	1350	1370	2230	3590	2030
10	877	903	1290	1220	1130	1050	1700	1310	1500	2190	3560	1880
11	889	895	1290	1290	1160	969	1660	1330	1530	2220	3250	1840
12	886	1040	1290	1300	1120	958	1680	1370	1480	2200	3280	1790
13	867	1270	1260	1250	1120	1030	1750	1310	1400	2200	2830	1810
14	885	1350	1260	1130	1090	1040	1750	1280	1380	2230	2920	1800
15	908	1360	1150	1100	1080	1090	1660	1300	1390	2200	2920	1800
16	885	1360	1200	1100	1070	1110	1660	1290	1380	2200	2870	1680
17	897	1360	1240	1120	1030	1150	1730	1340	1480	2230	2880	1540
18	1370	1360	1130	1150	1020	1180	1680	1370	1720	2250	2680	1490
19	937	1340	1180	1130	1020	1090	1620	1360	1720	2230	2290	1450
20	684	1340	1150	1130	1040	1110	1590	1410	1730	2230	2030	1430
21	700	1310	1160	1100	1020	1130	1570	1330	1830	2280	2060	1440
22	841	1310	1200	1120	1060	1160	1540	1330	1820	2280	1990	1590
23	884	1300	1180	1120	1040	1160	1530	1290	1880	2250	2160	1420
24	896	1300	1270	1120	1010	1230	1580	1300	1890	2320	2040	1390
25	911	1310	1250	1020	1010	1210	1530	1400	1900	2320	2150	1400
26	937	1280	1230	1130	1020	1210	1510	1410	1920	2250	2350	1330
27	917	1080	1240	1080	965	1230	1460	1480	1910	2250	2130	1320
28	895	1260	1130	1130	1020	1230	1440	1510	1940	2250	2130	1340
29	907	1300	1150	1130	---	1220	1400	1420	2070	2250	2280	1360
30	903	1330	1160	1090	---	1210	1390	1350	2100	2130	2260	1450
31	906	---	1180	1140	---	1230	---	1290	---	1920	2130	---
TOTAL	33440	34507	38380	35750	30025	33997	45320	42100	47990	69040	83510	50440
MEAN	1079	1150	1238	1153	1072	1097	1511	1358	1600	2227	2694	1681
MAX	1930	1360	1440	1310	1180	1230	1750	1510	2100	2320	3630	2110
MIN	684	889	1130	1010	965	958	1250	1280	1290	1920	1990	1320
AC-FT	66330	68440	76130	70910	59550	67430	89890	83510	95190	136900	165600	100000

CAL YR 1976 TOTAL 673047 MEAN 1839 MAX 4630 MIN 684 AC-FT 1335000
WTR YR 1977 TOTAL 544499 MEAN 1492 MAX 3630 MIN 684 AC-FT 1080000

13047500 FALLS RIVER NEAR SQUIRREL, ID

LOCATION.--Lat 44°04'07", long 111°14'25", in NW¼NE¼ sec.34, T.9 N., R.44 E., Fremont County, Hydrologic Unit 17040203, on right bank 0.2 mi (0.3 km) upstream from road bridge, 0.5 mi (0.8 km) downstream from headgates of Marysville Canal, 4 mi (6.4 km) northeast of Squirrel, 10.8 mi (17.4 km) upstream from Conant Creek, and at mile 19.8 (31.9 km).

DRAINAGE AREA.--326 mi² (844 km²). Mean altitude, 7,520 ft (2,290 m).

PERIOD OF RECORD.--August 1902 to June 1909 (gage heights only prior to October 1904), May 1918 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as Fall River at Wilson's Mill, near Marysville 1902, as Fall River near Marysville 1903, as Fall River at Fremont 1904-9, and as Fall River near Squirrel 1918-59.

REVISED RECORDS.--WSP 1217: Drainage area. WSP 1317: 1908. WSP 1347: 1905.

GAGE.--Water-stage recorder. Datum of gage is 5,589 ft (1,704 m) above mean sea level. Prior to Jan. 1, 1904, nonrecording gages at site 3 mi (4.8 km) upstream at different datum, Jan. 1, 1904 to Nov. 6, 1937, nonrecording gage at site 200 ft (61 m) upstream at different datum, and Nov. 7, 1937, to Oct. 7, 1948, nonrecording gage at site 100 ft (30 m) downstream at datum 0.29 ft (0.088 m) lower.

REMARKS.--Records excellent. Flow since October 1939 partly regulated by Grassy Lake (see sta 13046500). Diversions above station for irrigation of about 17,000 acres (6,880 hm²) below station and in adjacent basins, and diversions from tributary upstream from station for irrigation of about 500 acres or 200 hm² (1966 determination).

AVERAGE DISCHARGE.--63 years (1905-8, 1919-77), 776 ft³/s (21.98 m³/s), 562,200 acre-ft/yr (693 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,440 ft³/s (182 m³/s) June 27, 1927; minimum observed, 72 ft³/s (2.04 m³/s) Feb. 9, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft³/s (71.4 m³/s) June 5 (gage height, 3.25 ft or 0.991 m); minimum, 234 ft³/s (6.63 m³/s) Aug. 15 (gage height, 0.84 ft or 0.256 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 11-26, Dec. 30 to Jan. 18, Jan. 31 to Feb. 11)

1.0	306	3.0	2,220
1.5	611	4.0	3,700
2.0	1,050	5.0	5,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	500	493	420	390	376	383	1660	1220	361	244	352
2	565	491	509	415	380	375	368	1940	1720	364	244	345
3	674	494	451	415	385	374	364	1970	2070	369	259	337
4	640	487	440	41[illegible]	390	367	365	1680	2040	386	292	330
5	618	483	440	400	390	369	381	1100	2130	378	295	331
6	615	480	443	395	390	370	403	947	1910	351	325	328
7	587	474	456	400	400	369	431	893	1660	333	319	328
8	587	474	452	395	410	374	463	954	1560	326	315	325
9	590	471	465	390	400	386	522	1010	1310	317	286	327
10	582	469	439	395	390	382	546	1510	1560	331	279	330
11	573	461	430	400	395	365	492	1430	1220	330	273	323
12	562	451	420	410	391	362	512	1130	877	324	267	322
13	555	444	430	410	381	373	530	1310	739	315	322	325
14	553	452	440	410	375	366	567	1570	643	311	340	326
15	545	498	455	410	371	364	496	1510	590	306	299	359
16	545	498	465	405	372	366	542	1260	546	309	272	373
17	539	502	475	405	372	375	659	1170	513	305	273	365
18	527	500	470	405	371	382	559	981	478	299	281	405
19	525	499	450	402	369	380	575	946	466	297	302	372
20	524	491	440	397	370	358	592	898	447	296	310	358
21	520	477	420	393	377	357	638	793	442	300	325	400
22	511	483	415	393	396	366	757	880	410	322	350	404
23	512	471	410	387	380	373	1030	902	393	315	347	402
24	504	475	400	377	377	391	1210	1010	382	331	338	389
25	524	478	410	377	375	382	1240	1380	377	379	354	415
26	518	446	420	390	381	376	1200	1370	366	352	433	392
27	509	380	444	390	361	377	1390	1300	357	320	425	384
28	502	407	411	391	376	378	1550	1050	354	314	375	375
29	503	443	417	394	---	376	1560	878	370	305	361	396
30	501	461	415	401	---	364	1820	799	360	271	354	545
31	493	---	420	405	---	367	---	804	---	252	350	---
TOTAL	17063	14140	13645	12391	10715	11540	22145	37235	27510	10069	9809	10963
MEAN	550	471	440	400	383	372	738	1201	917	325	316	365
MAX	674	502	509	420	410	391	1820	1970	2130	386	433	545
MIN	493	380	400	377	361	357	364	793	354	252	244	322
AC-FT	33840	28050	27060	24580	21250	22890	43920	73860	54570	19970	19460	21750

CAL YR 1976 TOTAL 332934 MEAN 910 MAX 3900 MIN 360 AC-FT 660400
WTR YR 1977 TOTAL 197225 MEAN 540 MAX 2130 MIN 244 AC-FT 391200

13049500 FALLS RIVER NEAR CHESTER, ID

LOCATION.--Lat 44°01'06", long 111°33'57", in NW¼SE¼ sec.13, T.8 N., R.41 E., Fremont County, Hydrologic Unit 17040203, on right bank, 0.2 mi (0.3 km) upstream from highway bridge, at mile 0.8 (1.3 km), and 1.5 mi (2.4 km) north of Chester.

DRAINAGE AREA.--520 mi² (1,350 km²), approximately. Mean altitude, 6,970 ft (2,124 m).

PERIOD OF RECORD.--April 1920 to current year (irrigation seasons only prior to 1962). Prior to October 1959, published as Fall River near Chester.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,051.9 ft (1,539.82 m) above mean sea level. Prior to Aug. 9, 1920, nonrecording gage at site 200 ft (61 m) downstream at same datum. Aug. 9, 1920, to Apr. 28, 1921, nonrecording gage at present site and datum.

REMARKS.--Records excellent except those for winter period, which are fair. Flow since October 1939 partly regulated by Grassy Lake (see sta 13046500). Diversions above station for irrigation of about 4,600 acres (1,860 hm²) above station and about 36,000 acres (14,600 hm²) in adjacent basins (1966 determination). Station is below all diversions from Falls River.

AVERAGE DISCHARGE.--16 years (1961-77), 766 ft³/s (21.69 m³/s), 555,000 acre-ft/yr (684 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 6,380 ft³/s (181 m³/s) June 27, 1927 (gage height, 6.60 ft or 2.012 m); maximum gage height recorded, 7.93 ft (2.417 m) Jan. 18, 1966 (backwater from ice); minimum discharge recorded, 7 ft³/s (0.198 m³/s) June 27, 1961 (gage height, 0.74 ft or 0.226 m0.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,330 ft³/s (66.0 m³/s) June 5 (gage height, 4.30 ft or 1.311 m); maximum gage height, 7.26 ft (2.213 m) Mar. 22 (backwater from ice); minimum discharge, 9.0 ft³/s (0.26 m³/s) July 9 (gage height, 0.80 ft or 0.244 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 28 to Mar. 8)

0.7	7.0	2.5	520
1.0	25	3.0	881
1.3	63	4.0	1,930
1.9	221	5.0	3,410
2.2	350		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	591	540	470	470	450	466	1830	948	22	63	280
2	523	599	530	470	450	450	454	1880	1500	79	39	280
3	652	600	520	480	450	450	442	1860	1920	115	16	270
4	645	593	490	470	460	450	442	1660	1900	125	41	265
5	638	585	480	465	470	450	448	1070	1930	136	54	270
6	654	579	490	460	475	450	472	872	1620	105	73	298
7	632	569	500	460	475	450	508	815	1370	51	87	322
8	654	568	500	450	480	450	557	839	1180	28	86	317
9	655	563	510	440	470	454	616	856	995	19	60	316
10	641	563	500	440	460	464	636	1270	1200	21	48	309
11	628	556	480	450	460	457	576	1380	1030	28	47	308
12	625	545	470	460	470	441	609	1040	689	27	36	316
13	618	553	480	465	470	443	623	1100	537	33	72	312
14	614	564	480	460	460	446	671	1350	411	55	151	312
15	610	608	490	460	460	438	557	1390	358	66	150	322
16	605	611	505	460	440	432	569	1120	272	60	86	335
17	602	617	530	465	440	448	737	1050	251	71	96	303
18	596	619	540	470	450	454	596	864	214	67	95	354
19	598	616	530	460	470	460	583	791	190	47	110	312
20	607	611	510	460	475	452	576	753	170	41	127	275
21	601	592	480	470	470	445	616	602	200	49	164	307
22	566	601	490	460	465	450	700	636	150	57	233	331
23	583	587	500	450	450	466	966	686	85	61	219	332
24	581	589	500	440	450	490	1180	823	57	96	236	330
25	602	594	470	430	450	472	1200	1220	75	250	215	365
26	613	583	480	430	450	460	1130	1340	40	191	294	353
27	595	458	500	450	450	466	1250	1150	21	129	355	336
28	592	470	490	460	445	472	1500	957	14	99	286	333
29	595	500	470	460	---	466	1530	760	14	60	268	342
30	594	520	470	470	---	448	1760	664	16	34	259	479
31	587	---	470	480	---	448	---	636	---	65	271	---
TOTAL	18796	17204	15395	14215	12885	14072	22990	33264	19357	2287	4337	9584
MEAN	606	573	497	459	460	454	766	1073	645	73.8	140	319
MAX	655	619	540	480	480	490	1760	1880	1930	250	355	479
MIN	490	458	470	430	440	432	442	602	14	19	16	265
AC-FT	37280	34120	30540	28200	25560	27910	45600	65980	38390	4540	8600	19010

CAL YR 1976 TOTAL 346106 MEAN 946 MAX 4890 MIN 343 AC-FT 686500
WTR YR 1977 TOTAL 184386 MEAN 505 MAX 1930 MIN 14 AC-FT 365700

13050500 HENRYS FORK AT ST. ANTHONY, ID

LOCATION.--Lat 43°58'00", long 111°40'20", in NW¼ sec.6, T.7 N., R.41 E., Fremont County, Hydrologic Unit 17040203, on right bank 0.5 mi (0.8 km) upstream from bridge on main street of St. Anthony, 6.4 mi (10.3 km) downstream from Falls River, and at mile 32.4 (52.1 km).

DRAINAGE AREA.--1,770 mi² (4,580 km²), approximately. Mean altitude, 6,670 ft (2,033 m).

PERIOD OF RECORD.--March 1919 to current year (irrigation seasons only prior to 1962).

REVISED RECORDS.--WSP 1217: Drainage area. WSP 1317: 1923(M).

GAGE.--Water-stage recorder. Datum of gage is 4,950.7 ft (1,508.97 m) above mean sea level. March 1919 to May 7, 1922, nonrecording gages and May 8, 1922, to Aug. 14, 1931, water-stage recorder, at site 150 ft (46 m) downstream at datum 0.08 ft (0.024 m) lower.

REMARKS.--Records good. Diversions above station for irrigation of about 21,000 acres (8,500 hm²) below and about 58,000 acres (23,500 hm²) above station of which about 1,100 acres (450 hm²) are by withdrawals from ground water (1966 determination). Flow regulated by powerplant 17 mi (27.4 km) above station and by Henrys Lake (see sta 13039000), Island Park Reservoir (see sta 13042000), and Grassy Lake (see sta 13046500).

AVERAGE DISCHARGE.--16 years (1962-77), 1,954 ft³/s (55.34 m³/s) 1,416,000 acre-ft/yr (1,746 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 11,500 ft³/s (326 m³/s) June 4, 1975 (gage height, 7.77 ft or 2.368 m, present datum); minimum discharge recorded, 21 ft³/s (0.60 m³/s) July 9, 1973 (gage height, 1.91 ft or 0.582 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,800 ft³/s (79.3 m³/s) June 3 (gage height, 4.52 ft or 1.378 m); minimum, 585 ft³/s (16.6 m³/s) June 20 (gage height, 2.98 ft or 0.908 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.9	520	5.0	3,710
3.4	1,010	6.0	6,040
4.0	1,800	7.0	8,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	1370	1650	1710	1720	1360	1300	2090	1510	939	1090	1120
2	1810	1380	1770	1790	1620	1350	1310	2180	1990	1160	1110	1120
3	2000	1370	1650	1940	1600	1330	1270	2180	2430	1200	1250	1100
4	1950	1350	1650	1770	1680	1280	1260	2090	2460	1160	1510	1110
5	1890	1350	1610	1640	1630	1290	1240	1550	2370	1280	1750	1140
6	1800	1350	1580	1600	1610	1310	1230	1350	1990	1370	1870	1260
7	1570	1320	1640	1910	1610	1300	1250	1450	1670	1170	1870	1290
8	1490	1310	1640	1830	1590	1300	1330	1540	1390	995	1930	1280
9	1550	1330	1640	1470	1610	1300	1460	1580	1240	985	1840	1250
10	1530	1250	1600	1920	1580	1320	1610	1980	1520	950	1760	1140
11	1490	1200	1590	2100	1590	1230	1500	2250	1780	965	1600	1080
12	1480	1290	1600	2100	1550	1200	1520	1930	1470	905	1560	1060
13	1460	1540	1570	2050	1550	1270	1640	1610	1250	883	1350	1120
14	1460	1570	1590	1850	1510	1310	1690	1710	938	933	1420	1180
15	1470	1600	1530	1700	1480	1310	1510	1750	907	966	1420	1280
16	1430	1560	1500	1750	1470	1340	1490	1510	804	973	1310	1210
17	1430	1520	1570	1750	1440	1360	1670	1530	782	971	1330	1080
18	1650	1520	1480	1750	1430	1420	1520	1410	902	963	1260	1090
19	1530	1520	1490	1750	1410	1340	1440	1350	871	905	1080	1080
20	1260	1520	1410	1750	1430	1350	1350	1340	832	896	984	1030
21	1260	1500	1460	1650	1430	1350	1360	1220	893	1070	1000	1050
22	1300	1490	1560	1700	1480	1390	1410	1260	889	1030	1030	1190
23	1390	1460	1680	1700	1430	1420	1600	1310	823	925	1060	1190
24	1390	1470	1860	1700	1400	1470	1870	1400	830	1030	1050	1230
25	1390	1480	1880	1600	1400	1420	1780	1900	994	1510	1080	1270
26	1430	1500	1790	1700	1370	1430	1570	2210	1010	1470	1230	1200
27	1390	1400	1720	1650	1290	1440	1620	2230	811	1300	1310	1210
28	1380	1620	1550	1700	1380	1410	1840	2060	806	1260	1220	1210
29	1400	1670	1540	1700	---	1320	1870	1690	884	1230	1310	1220
30	1390	1710	1650	1600	---	1270	2040	1390	895	1150	1290	1430
31	1380	---	1680	1650	---	1350	---	1230	---	1010	1260	---
TOTAL	47090	43520	50130	54480	42290	41540	45550	52280	37941	33554	42134	35220
MEAN	1519	1451	1617	1757	1510	1340	1518	1686	1265	1082	1359	1174
MAX	2000	1710	1880	2100	1720	1470	2040	2250	2460	1510	1930	1430
MIN	1260	1200	1410	1470	1290	1200	1230	1220	782	883	984	1030
AC-FT	93400	86320	99430	108100	83880	82390	90350	103700	75260	66550	83570	69860

CAL YR 1976 TOTAL 869580 MEAN 2376 MAX 8870 MIN 1200 AC-FT 1725000
WTR YR 1977 TOTAL 525729 MEAN 1440 MAX 2460 MIN 782 AC-FT 1043000

13050500 HENRYS FORK AT ST. ANTHONY, ID

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, November 1976 to August 1977.
REMARKS.--Miscellaneous chemical data published for water year 1975-76.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
NOV 10...	1515	1190	157	12.0	6.0	2	40	0	11
DEC 16...	1045	1600	167	5.0	.0	1	--	--	--
MAR 15...	1005	1370	150	.5	1.5	2	--	--	--
APR 20...	1220	1400	152	11.0	9.5	0	--	--	--
MAY 31...	1200	1240	154	24.0	13.5	0	--	--	--
JUL 11...	1250	965	157	21.5	20.0	0	63	0	16
AUG 24...	1320	1040	169	25.0	18.0	1	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV 10...	3.0	17	46	1.2	2.2	71	0	58	3.7
DEC 16...	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--
MAY 31...	--	--	--	--	--	--	--	--	--
JUL 11...	5.6	10	25	.5	2.0	78	0	64	7.5
AUG 24...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 10...	5.8	2.4	31	112	.15	360	.22	.01
DEC 16...	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--
MAY 31...	--	--	--	--	--	--	--	--
JUL 11...	5.3	1.8	30	117	.16	305	.03	.06
AUG 24...	--	--	--	--	--	--	--	--

13052200 TETON RIVER ABOVE SOUTH LEIGH CREEK, NEAR DRIGGS, ID

LOCATION.--Lat 43°46'54", long 111°12'30", in NW¼NE¼ sec.12, T.5 N., R.44 E., Teton County, Hydrologic Unit 17040204, on right bank 75 ft (23 m) upstream from county road bridge, 3.5 mi (5.6 km) southwest of Tetonia, 6.5 mi (10.5 km) northwest of Driggs, and at mile 56.3 (90.6 km).

DRAINAGE AREA.--335 mi² (868 km²), approximately.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,952.9 ft (1,814.44 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Diversions above station for irrigation of about 42,000 acres (17,000 hm²) of which about 1,000 acres (400 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--16 years, 407 ft³/s (11.53 m³/s), 294,900 acre-ft/yr (364 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,270 ft³/s (64.3 m³/s) June 18, 19, 1974 (gage height, 4.28 ft or 1.305 m); maximum gage height, 6.37 ft (1.942 m) Feb. 1, 1963; minimum daily discharge, 75 ft³/s (2.12 m³/s) Jan. 11, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft³/s (36.0 m³/s) Apr. 8 (gage height, 3.19 ft or 0.972 m); minimum, 55 ft³/s (1.56 m³/s) Mar. 20 (gage height, 0.66 ft or 0.201 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	348	260	195	170	180	165	202	212	233	192	168
2	402	349	255	200	165	177	157	225	223	239	191	163
3	441	344	250	200	165	176	155	229	255	245	190	163
4	446	344	250	195	165	174	164	229	278	245	193	159
5	433	336	250	185	165	173	200	213	311	258	189	158
6	433	332	250	185	165	174	275	214	353	267	195	150
7	428	328	245	190	165	172	445	240	427	246	190	148
8	424	330	240	190	160	180	683	215	442	246	186	146
9	418	327	230	180	160	166	759	206	437	258	180	145
10	417	327	230	180	160	165	532	200	424	246	173	149
11	412	320	225	180	160	176	382	239	358	240	166	147
12	414	305	225	185	160	193	335	213	335	235	164	146
13	409	308	230	190	160	181	311	191	312	229	162	145
14	413	315	230	190	165	164	298	196	295	225	159	142
15	404	299	220	195	165	179	283	226	287	220	154	162
16	400	288	220	190	170	175	284	228	273	218	152	163
17	394	299	220	190	170	172	285	259	255	208	149	156
18	388	310	205	190	170	172	274	241	252	202	159	157
19	384	312	200	190	170	170	255	289	258	201	182	158
20	385	299	195	180	175	161	243	350	258	210	166	154
21	380	288	195	175	180	176	235	285	264	203	161	161
22	379	289	195	180	175	152	228	254	272	203	166	166
23	376	285	200	175	175	166	228	249	259	214	161	179
24	370	281	200	170	175	181	225	235	254	245	154	170
25	372	286	200	170	175	168	227	252	248	315	164	166
26	381	225	205	175	170	160	225	254	242	249	211	162
27	368	200	210	180	150	162	214	250	237	229	202	159
28	365	270	205	180	180	219	211	244	238	221	187	155
29	359	270	195	175	---	162	209	228	238	212	180	161
30	357	265	190	175	---	210	204	228	233	196	172	184
31	353	---	195	170	---	159	---	220	---	193	168	---
TOTAL	12307	9079	6820	5705	4685	5435	8691	7304	8730	7151	5418	4742
MEAN	397	303	220	184	167	175	290	236	291	231	175	158
MAX	446	349	260	200	180	219	759	350	442	315	211	184
MIN	353	200	190	170	150	152	155	191	212	193	149	142
AC-FT	24410	18010	13530	11320	9290	10780	17240	14490	17320	14180	10750	9410

CAL YR 1976 TOTAL 181074 MEAN 495 MAX 1440 MIN 180 AC-FT 359200
WTR YR 1977 TOTAL 86067 MEAN 236 MAX 759 MIN 142 AC-FT 170700

13054200 TETON RIVER BELOW BADGER CREEK, NEAR LAMONT, ID

LOCATION.--Lat 43°54'57", long 111°16'52", in NE¼SE¼ sec.20, T.7 N., R.44 E., Teton County, Hydrologic Unit 17040204, on left bank 300 ft (91 m) below Badger Creek, 0.9 mi (1.4 km) upstream from Bitch Creek, 5.2 mi (8.4 km) northeast of Clementsville, and 5.0 mi (8.0 km) southwest of Lamont.

DRAINAGE AREA.--547 mi^2 (1,417 km^2).

PERIOD OF RECORD.--October 1974 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,360 ft or 1,630 m (from topographic map).

REMARKS.--Records fair. Many diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft^3/s (76.5 m^3/s) July 7, 1975 (gage height, 6.95 ft or 2.118 m); minimum discharge, 206 ft^3/s (5.83 m^3/s) Mar. 12, 1976 (gage height, 3.29 ft or 1.003 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,420 ft^3/s (40.2 m^3/s) Apr. 9 (gage height, 5.38 ft or 1.640 m); minimum discharge, 85 ft^3/s (2.41 m^3/s) Aug. 14 (gage height, 2.77 ft or 0.844 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 13 to Dec. 12)

2.7	62	4.5	820
3.0	127	5.0	1,150
3.5	285	5.5	1,500
4.0	520		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	550	508	405	328	276	295	338	369	380	319	294	309
2	550	508	392	319	269	282	333	384	388	324	294	305
3	604	496	393	332	260	284	327	390	434	332	287	301
4	604	496	386	332	264	297	334	390	479	337	297	297
5	574	496	394	324	260	296	360	378	502	345	287	293
6	568	496	390	305	250	302	471	358	573	353	303	293
7	562	485	392	331	250	307	642	381	717	341	310	289
8	556	485	391	324	251	306	832	366	815	333	306	286
9	550	490	404	312	249	303	1100	350	793	331	287	286
10	544	485	378	322	246	301	899	351	797	331	273	289
11	544	473	380	330	254	282	631	392	720	325	272	289
12	538	468	368	330	256	311	537	381	633	318	272	286
13	532	462	388	337	259	319	495	352	598	299	273	286
14	538	462	395	336	261	283	471	346	551	293	264	286
15	532	456	370	328	265	308	429	377	526	290	265	289
16	532	445	369	335	275	330	429	380	477	288	254	301
17	532	445	360	340	275	295	422	408	451	300	250	297
18	532	462	336	334	273	293	416	404	428	290	254	293
19	532	461	324	328	275	292	396	418	428	274	272	293
20	526	457	327	319	277	279	379	520	417	273	272	293
21	520	445	330	296	287	363	373	470	401	293	272	297
22	526	440	332	322	301	324	365	417	393	306	279	301
23	526	442	336	305	289	319	366	417	378	296	282	313
24	514	438	339	302	286	356	383	418	360	322	268	313
25	520	441	340	285	286	349	393	436	355	422	279	313
26	532	376	352	293	282	349	374	464	350	370	329	305
27	526	289	352	297	246	345	376	458	337	345	349	301
28	520	413	328	289	297	337	373	441	336	331	329	293
29	514	413	314	281	---	339	384	416	318	320	321	293
30	508	402	315	275	---	323	372	404	310	306	317	305
31	508	---	313	272	---	337	---	391	---	299	317	---
TOTAL	16714	13635	11193	9769	7519	9711	14000	12447	14645	9906	8928	8895
MEAN	539	455	361	315	269	313	467	402	488	320	288	297
MAX	604	508	405	340	301	363	1100	520	815	422	349	313
MIN	508	289	313	272	246	279	327	346	310	273	250	286
AC-FT	33150	27050	22200	19380	14910	19260	27770	24690	29050	19650	17710	17640

CAL YR 1976 TOTAL 283081 MEAN 773 MAX 2290 MIN 282 AC-FT 561500
WTR YR 1977 TOTAL 137362 MEAN 376 MAX 1100 MIN 246 AC-FT 272500

13054300 BITCH CREEK NEAR LAMONT, ID

LOCATION.--Lat 43°56'17", long 111°10'43", in sec.17, T.7 N., R.45 E., Teton County, Hydrologic Unit 17040204, on left bank about 500 ft (152 m) downstream from State Highway 32 crossing, about 0.5 mi (0.8 km) upstream from Swanner Creek, 2.8 mi (4.5 km) southeast of Lamont, 4.6 mi (7.4 km) north of Felt, and at mile 7.3 (11.8 km).

DRAINAGE AREA.--80.9 mi^2 (210 km^2).

PERIOD OF RECORD.--October 1974 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,846 ft or 1,782 m (from topographic map).

REMARKS.--Records good except those for November to March, which are fair. Small diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,880 ft^3/s (53.2 m^3/s) June 7, 1975 (gage height, 4.54 ft or 1.384 m); minimum daily discharge, 24 ft^3/s (0.68 m^3/s) Mar. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 829 ft^3/s (23.5 m^3/s) June 2 (gage height, 3.72 ft or 1.134 m); minimum daily, 17 ft^3/s (0.48 m^3/s) Nov. 13.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 11-14, 17, 27, 28, Dec. 1, 10-23, 28-31, Jan. 5, 6, 8-11, 21, 23-31, Feb. 2-10, 15, 20, 27, Mar. 4, 11, 12, 14, 15, 21, 31, Apr. 3)

1.7	15	2.5	141
1.8	21	3.0	330
2.0	41	3.5	650
2.2	71	4.0	1,120

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	45	36	30	27	28	26	235	626	66	36	37
2	52	44	34	30	26	28	23	263	715	65	35	35
3	71	44	35	31	26	27	24	243	682	67	35	34
4	69	44	34	30	26	29	27	216	741	67	37	33
5	63	43	34	30	26	29	26	174	603	66	37	33
6	60	43	33	30	25	27	28	152	410	61	40	32
7	57	43	33	30	25	26	31	143	321	57	37	32
8	55	43	34	29	26	26	36	161	276	54	36	31
9	55	41	34	29	26	28	41	201	259	52	35	31
10	55	41	29	29	26	27	45	284	223	50	33	31
11	54	32	31	30	27	27	47	220	209	51	33	31
12	52	20	31	30	27	26	57	194	187	48	34	30
13	51	17	33	30	27	28	61	216	167	45	35	30
14	49	19	32	29	28	27	57	247	158	43	35	30
15	48	34	31	30	26	26	54	243	149	42	35	35
16	47	41	30	30	27	26	75	216	212	42	35	36
17	47	44	32	30	27	26	75	201	205	41	35	34
18	44	41	30	30	27	26	63	180	194	39	34	38
19	43	40	30	30	27	26	60	174	184	39	35	35
20	44	38	26	30	26	26	57	167	177	38	35	34
21	44	26	28	27	28	25	60	164	174	40	35	37
22	45	40	29	31	28	26	69	184	164	39	35	36
23	49	28	30	26	28	27	98	209	158	38	33	39
24	45	34	30	27	27	28	135	239	143	40	29	38
25	47	39	30	26	27	26	161	298	137	50	30	37
26	45	28	30	28	27	26	191	302	116	43	68	37
27	43	22	31	28	25	26	223	293	93	39	64	36
28	43	23	30	28	30	26	223	280	84	37	49	37
29	44	33	29	27	---	25	212	259	77	36	42	41
30	47	37	30	26	---	25	231	239	72	36	42	70
31	44	---	29	26	---	24	---	404	---	37	39	---
TOTAL	1563	1067	968	899	748	823	2516	7001	7916	1468	1173	1070
MEAN	50.4	35.6	31.2	29.0	26.7	26.5	83.9	226	264	47.4	37.8	35.7
MAX	71	45	36	31	30	29	231	404	741	67	68	70
MIN	43	17	26	26	25	24	23	143	72	36	29	30
AC-FT	3100	2120	1920	1780	1480	1630	4990	13890	15700	2910	2330	2120

CAL YR 1976 TOTAL 69080 MEAN 189 MAX 1350 MIN 17 AC-FT 137000
WTR YR 1977 TOTAL 27212 MEAN 74.6 MAX 741 MIN 17 AC-FT 53970

13054600 CANYON CREEK AT STATE HIGHWAY 33, NEAR NEWDALE, ID

LOCATION.--Lat 43°50'44", long 111°26'41", in NW¼SE¼ sec.13, T.6 N., R.42 E., Madison County, Hydrologic Unit 17040204, on left bank 0.2 mi (0.3 km) upstream from State Highway 33 bridge, and 8.6 mi (13.8 km) southeast of Newdale.

DRAINAGE AREA.--79.9 mi^2 (207 km^2).

PERIOD OF RECORD.--October 1974 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,620 ft or 1,710 m (from topographic map).

REMARKS.--Records fair. Diversions above station for irrigation of about 2,200 acres (890.3 hm^2) from the Canyon Creek Canal, with additional acres being developed from several pumping lifts.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 694 ft^3/s (19.7 m^3/s) June 8, 1975 (gage height, 8.14 ft or 2.481 m); no flow on July 27, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 11 or 12, 1962, reached a discharge of 814 ft^3/s (23.1 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 378 ft^3/s (10.7 m^3/s) Apr. 8 (gage height, 7.40 ft or 2.256 m); no flow on many days during June to September.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 24 to Apr. 7, June 9 to Sept. 30; stage-discharge relation affected by ice Nov. 29 to Dec. 9, Feb. 3-9, 27, Mar. 11, 12, 14, 15)

3.9	0.1	6.0	144
4.2	3.1	6.5	215
4.5	14	7.0	300
5.0	46	7.5	404
5.5	86		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	12	11	8.4	11	10	12	44	19	.03	.13	.00
2	9.6	12	12	8.2	12	10	11	40	6.9	.04	.13	.00
3	22	12	11	8.0	12	10	10	44	13	.01	.00	.00
4	17	12	10	8.0	10	9.5	13	39	8.8	.00	.00	.00
5	13	11	9.5	7.0	10	9.4	18	33	6.5	.01	.18	.00
6	15	11	9.0	6.0	10	9.4	31	31	4.1	.00	.21	.23
7	16	11	8.5	5.8	10	9.8	44	34	2.2	.02	.28	.00
8	16	11	11	5.6	10	9.9	125	37	2.0	.01	.36	.22
9	14	11	10	5.0	10	10	81	39	.02	.01	.03	.05
10	14	11	9.0	6.0	10	10	39	44	.04	.00	.16	.69
11	14	10	9.5	7.0	10	9.5	33	40	.09	.00	.06	.87
12	14	8.0	10	8.0	11	9.4	31	35	.21	.00	.36	.87
13	14	6.0	10	8.5	11	9.6	29	35	.13	.00	.07	.76
14	14	6.5	9.5	9.0	11	9.6	33	37	.00	.00	.22	.51
15	14	8.0	9.2	9.2	11	10	26	43	.03	.00	.16	.52
16	14	9.0	8.9	9.4	11	11	28	43	.40	.00	.00	.13
17	14	10	9.4	9.6	11	10	36	47	.32	.00	.09	.20
18	13	10	10	9.6	11	10	26	41	.33	.00	.00	.20
19	12	9.5	10	10	11	10	24	42	.88	.00	.00	.24
20	12	9.0	9.6	11	11	12	24	39	.08	.00	.02	.24
21	12	7.0	9.5	11	11	11	26	39	.00	.00	.00	.44
22	12	10	9.0	10	11	11	29	46	.00	.00	.11	1.4
23	14	8.0	8.8	11	11	18	34	55	.00	.00	.10	1.6
24	13	9.0	8.6	11	10	16	41	58	.04	.00	.24	1.8
25	13	10	8.4	9.0	10	12	43	50	.10	.00	.17	1.8
26	13	6.0	9.0	7.5	10	10	43	40	.01	.00	.38	1.9
27	12	3.0	9.5	8.5	10	11	48	25	.05	.00	.55	2.1
28	12	3.5	10	9.0	10	12	46	30	.02	.12	.62	2.1
29	12	4.5	10	9.5	---	11	41	27	.00	.04	.05	2.2
30	13	7.0	9.5	10	---	10	41	23	.00	.02	.16	4.3
31	12	---	8.0	10	---	10	---	16	---	.00	.00	---
TOTAL	418.1	268.0	297.4	265.8	297	331.1	1066	1196	65.25	.31	4.84	25.37
MEAN	13.5	8.93	9.59	8.57	10.6	10.7	35.5	38.6	2.18	.010	.16	.85
MAX	22	12	12	11	12	18	125	58	19	.12	.62	4.3
MIN	8.5	3.0	8.0	5.0	10	9.4	10	16	.00	.00	.00	.00
AC-FT	829	532	590	527	589	657	2110	2370	129	.6	9.6	50

CAL YR 1976 TOTAL 19074.29 MEAN 52.1 MAX 447 MIN .00 AC-FT 37830
WTR YR 1977 TOTAL 4235.17 MEAN 11.6 MAX 125 MIN .00 AC-FT 8400

NOTE.-- No gage-height record Oct. 18 to Nov. 28 and Dec. 10 to Feb. 2.

13054805 TETON RIVER BELOW TETON DAM, NEAR NEWDALE, ID

LOCATION.--Lat 43°54'50", long 111°34'31", in SW¼ sec.24, T.7 N., R.42 E., Madison County, Hydrologic Unit 17040204, on left bank 2.9 mi (4.7 km) below Teton Dam and 2.2 mi (3.5 km) northeast of Newdale.

DRAINAGE AREA.--851 mi² (2,204 km²).

PERIOD OF RECORD.--October 1974 to October 1977 (discontinued).

GAGE.--Water-stage recorder. Oct. 22, 1974, to Apr. 10, 1975, nonrecording gage at site 2.9 mi (4.7 km) upstream and Apr. 11, 1975, to June 5, 1976, water-stage recorder at site 2.7 mi (4.3 km) upstream at different datum. Altitude of gage is 4,986.75 ft (1,519.961 m) above mean sea level.

REMARKS.--Records fair. Prior to June 5, 1976, flow regulated by Teton Reservoir. Diversions from tributaries above station for irrigation in Wyoming and Idaho. Failure of Teton Dam on June 5, 1976, inundated 185 mi² (479 km²).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300,000 ft³/s (65,100 m³/s) June 5, 1976, on basis of slope-area measurement made after failure of Teton Dam (gage height, 82 ft or 25.0 m) from floodmark; minimum discharge, 59 ft³/s (1.67 m³/s) Oct. 4, 1976 (gage height, 2.73 ft or 0.832 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s (36.5 m³/s) Apr. 9 (gage height, 13.26 ft or 4.042 m); maximum gage height, 13.71 ft (4.179 m) Feb. 2 (backwater from ice); minimum daily discharge, 265 ft³/s (7.50 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1977

1	370	6	332	11	335	21	---	16	332	26	---
2	362	7	332	12	332	22	---	17	332	27	---
3	348	8	343	13	332	23	---	18	---	28	---
4	340	9	343	14	332	24	---	19	---	29	---
5	335	10	337	15	330	25	---	20	---	30	---
										31	---
										TOTAL	---
										MEAN	---
										MAX	---
										MIN	---
										AC-FT	---

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	654	647	456	407	400	424	418	591	539	351	308	332
2	640	649	468	419	405	418	421	595	613	351	302	332
3	676	648	520	426	400	412	409	613	712	354	302	335
4	733	645	552	459	409	415	407	587	750	365	302	332
5	699	646	517	426	421	415	424	551	789	367	306	328
6	717	710	484	380	415	416	469	499	826	367	308	325
7	650	727	499	400	420	424	595	491	884	362	319	321
8	657	628	527	400	427	433	767	495	958	348	325	314
9	661	514	496	390	427	448	1070	499	965	343	312	312
10	660	549	475	410	407	457	917	547	993	348	306	312
11	658	577	469	400	379	439	655	587	917	343	297	314
12	648	516	462	440	384	421	567	551	820	335	300	317
13	651	453	461	450	387	433	539	515	723	323	297	314
14	652	432	489	445	379	430	523	527	665	314	300	312
15	653	445	487	440	362	412	483	559	622	314	293	314
16	645	463	446	442	362	424	469	559	575	312	285	325
17	653	480	464	447	370	430	495	559	543	312	291	323
18	648	505	440	445	376	424	483	551	507	314	285	325
19	641	504	422	433	379	418	463	535	487	300	287	328
20	637	512	406	428	379	415	503	571	479	305	300	323
21	653	489	394	412	387	404	436	579	475	319	304	323
22	653	467	408	389	409	433	430	543	466	315	304	330
23	656	478	441	426	407	427	442	555	454	320	304	335
24	657	470	447	386	401	436	487	591	436	320	302	343
25	651	475	430	370	401	445	539	618	424	370	297	337
26	672	490	455	371	401	427	567	655	418	409	328	330
27	670	360	451	397	401	418	587	650	404	356	393	328
28	661	265	425	405	381	427	622	631	384	328	379	325
29	652	451	371	390	---	418	600	600	373	319	356	325
30	649	457	373	390	---	412	587	571	356	312	335	340
31	656	---	379	400	---	404	---	543	---	306	335	---
TOTAL	20463	15652	14114	12823	11076	13161	16374	17518	18557	10402	9662	9754
MEAN	660	522	455	414	396	425	546	565	619	336	312	325
MAX	733	727	552	459	427	457	1070	655	993	409	393	343
MIN	637	265	371	370	362	404	407	491	356	300	285	312
AC-FT	40590	31050	28000	25430	21970	26100	32480	34750	36810	20630	19160	19350

CAL YR 1976 TOTAL 409440 MEAN 1119 MAX 122000 MIN 265 AC-FT 812100
WTR YR 1977 TOTAL 169556 MEAN 465 MAX 1070 MIN 265 AC-FT 336300

13054805 TETON RIVER BELOW TETON DAM, NEAR NEWDALE, ID

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1976 to August 1977 (discontinued).
REMARKS.--Miscellaneous chemical data published for water year 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 12...	1500	501	185	--	8.0	5.0	0	--	--
DEC 20...	1315	362	297	8.4	-.5	.5	0	180	16
FEB 02...	1625	420	365	--	-8.5	.0	0	--	--
JUN 08...	1255	976	232	--	25.0	16.5	1	--	--
AUG 26...	1140	315	255	--	13.5	16.0	60	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 12...	--	--	--	--	--	--	--	--	--
DEC 20...	47	14	4.3	5	.1	1.3	200	0	164
FEB 02...	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--
AUG 26...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 12...	--	--	--	--	--	--	--	--	--
DEC 20...	12	3.0	.2	16	200	.27	195	.85	.03
FEB 02...	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--
AUG 26...	--	--	--	--	--	--	--	--	--

13056500 HENRYS FORK NEAR REXBURG, ID

LOCATION.--Lat 43°49'34", long 111°54'15", in NW¼NE¼ sec.30, T.6 N., R.39 E., Madison County, Hydrologic Unit 17040203, on right bank 200 ft (61 m) downstream from highway bridge, 6 mi (9.7 km) west of Rexburg, and at mile 9.2 (14.8 km).

DRAINAGE AREA.--2,920 mi^2 (7,560 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1909 to current year. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as North Fork of Snake River near Rexburg.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,806.35 ft (1,464.98 m) above mean sea level. Apr. 13, 1909, to Sept. 28, 1912, nonrecording gage at datum 0.67 ft (0.204 m) higher. Sept. 29, 1912, to Apr. 4, 1913, nonrecording gage at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by operation of powerplant near Ashton, and by Henrys Lake (see sta 13039000), Island Park Reservoir (see sta 13042000), Grassy Lake (see sta 13046500), and Teton Reservoir (see sta 13054800). Diversions above station for irrigation of about 5,000 acres (2,000 hm^2) below and about 204,000 acres (82,600 hm^2) above station of which about 21,000 acres (8,500 hm^2) are by withdrawals from ground water (1966 determination). Considerable water leaks above gage into the Snake Plain aquifer. Station is downstream from all tributaries except inflow from ground water and irrigation waste. Part of ground-water flow escapes westward beneath the Snake River plains above gaging station.

AVERAGE DISCHARGE.--68 years, 2,034 ft^3/s (57.60 m^3/s), 1,474,000 acre-ft/yr (1,820 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 79,000 ft^3/s (2,240 m^3/s) June 5, 1976; maximum gage height, 22.36 ft (6.815 m) June 5, 1976, result of Teton Dam failure; minimum, 183 ft^3/s (5.18 m^3/s) Mar. 24-28, 1934 (gage height, 1.45 ft or 0.442 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,760 ft^3/s (826 m^3/s) Oct. 4 (gage height, 5.93 ft or 1.807 m); maximum gage height, 6.07 ft (1.850 m) Jan. 13, 14, 15, 16; minimum discharge, 448 ft^3/s (12.7 m^3/s) June 29 (gage height, 2.70 ft or 0.823 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2490	1970	1900	1500	1600	1500	1340	1400	941	550	988	1370
2	2490	1990	1900	1500	1600	1500	1280	1430	1200	642	1040	1260
3	2670	1950	2000	1500	1600	1500	1210	1550	1590	889	1020	1200
4	2710	1930	1900	1600	1600	1500	1120	1640	1930	886	1210	1150
5	2670	1910	1850	1600	1600	1460	1080	1510	1820	1080	1470	1120
6	2620	1890	1850	1500	1600	1470	1070	1130	1700	1170	1700	1170
7	2460	1890	1850	1400	1600	1480	1060	1080	1450	1170	1850	1210
8	2240	1870	1850	1500	1600	1500	1150	1240	1200	838	1890	1230
9	2260	1840	1800	1400	1620	1540	1360	1280	1140	752	1920	1250
10	2230	1800	1800	1500	1650	1540	1670	1400	1090	723	1790	1260
11	2200	1730	1750	1700	1650	1480	1610	1800	1600	716	1730	1170
12	2210	1670	1700	1800	1700	1420	1340	1780	1620	689	1580	1150
13	2170	1830	1750	1800	1650	1410	1290	1430	1410	641	1450	1130
14	2170	1910	1750	1700	1600	1460	1300	1240	1080	633	1350	1250
15	2170	1930	1750	1600	1600	1470	1290	1320	824	656	1420	1320
16	2160	1890	1650	1550	1600	1510	1110	1340	715	633	1370	1370
17	2130	1890	1700	1550	1600	1520	1110	1300	550	659	1370	1330
18	2130	1880	1700	1550	1600	1560	1210	1340	507	649	1390	1290
19	2430	1850	1600	1550	1600	1550	1040	1300	512	587	1280	1320
20	2030	1840	1600	1550	1550	1500	926	1310	525	556	1140	1270
21	1960	1820	1600	1500	1550	1490	908	1260	545	592	1060	1240
22	1940	1800	1600	1500	1550	1510	868	1130	600	809	1080	1300
23	2020	1770	1650	1500	1550	1550	896	1180	580	707	1070	1430
24	2060	1760	1650	1500	1550	1610	1100	1200	511	727	1100	1410
25	2050	1770	1700	1500	1500	1580	1230	1520	502	1160	1090	1380
26	2060	1760	1650	1450	1500	1540	1040	1950	580	1510	1220	1390
27	2060	1820	1650	1500	1500	1480	970	2070	520	1360	1450	1340
28	2040	1500	1600	1550	1500	1480	1050	2040	448	1230	1460	1330
29	2010	1700	1500	1550	---	1390	1140	1800	448	1200	1490	1330
30	1990	1800	1550	1550	---	1360	1190	1490	525	1120	1500	1440
31	1990	---	1550	1550	---	1370	---	1150	---	984	1480	---
TOTAL	68620	54960	53350	48000	44420	46250	34958	44610	28663	26518	42958	38410
MEAN	2220	1832	1721	1548	1586	1492	1165	1439	955	855	1386	1280
MAX	2710	1990	2000	1800	1700	1610	1670	2070	1930	1510	1920	1440
MIN	1940	1500	1500	1400	1500	1360	868	1080	448	550	988	1120
AC-FT	136500	109000	105800	95210	88110	91740	69340	88480	56850	52600	85210	76190

CAL YR 1976 TOTAL 1161770 MEAN 3174 MAX 79000 MIN 1500 AC-FT 2304000
WTR YR 1977 TOTAL 531917 MEAN 1457 MAX 2710 MIN 448 AC-FT 1055000

13056500 HENRYS FORK NEAR REXBURG, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 08...	1230	1870	199	7.9	14.0	6.0	1	75	0
DEC 17...	0800	1700	186	--	-14.5	.0	0	--	--
FEB 09...	1318	1620	180	--	-3.0	.0	0	--	--
MAR 17...	1135	1520	183	--	3.0	3.0	71	--	--
APR 25...	1110	1190	180	--	24.0	12.5	0	--	--
JUN 13...	1420	1380	189	--	25.5	19.0	0	--	--
JUL 13...	1245	638	206	--	22.0	18.0	0	85	0
AUG 23...	1350	1060	184	--	34.0	19.5	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 08...	20	6.2	14	28	.7	2.1	100	0	82
DEC 17...	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--	--	--
APR 25...	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--
JUL 13...	23	6.6	11	21	.5	2.5	110	0	90
AUG 23...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 08...	9.7	5.4	1.6	27	137	.19	692	.40	.02
DEC 17...	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--	--	--
APR 25...	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--
JUL 13...	5.1	4.6	1.6	26	136	.18	234	.28	.07
AUG 23...	--	--	--	--	--	--	--	--	--

MONTHLY SUMMARY OF DIVERSIONS IN HENRYS FORK BASIN

Records available for part of each irrigation season from 1919 to current year. Discharge of canals computed from daily or thrice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records furnished by watermaster for Water District 01. Only monthly totals are published beginning with water year 1977.

13047000 DIVERSIONS (2 canals) FROM FALLS RIVER ABOVE GAGING STATION NEAR SQUIRREL, ID

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL							.00	90.00	3829.00	6338	2449.0	54.0
MEAN							.000	2.90	128	204	79.0	1.80
MAX							.00	45	218	242	158	3.0
MIN							.00	.00	.00	118	2.0	1.0
AC-FT							.00	179	7590	12570	4860	107

THE PERIOD: AC-FT 25,306

13049000 DIVERSIONS (9 canals) FROM FALLS RIVER BETWEEN SQUIRREL AND CHESTER GAGING STATIONS, ID

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL							3298	9449	12768	9478	6824	3122
MEAN							110	305	426	306	220	104
MAX							269	386	555	379	295	155
MIN							35	183	262	186	142	70
AC-FT							6540	18740	25330	18800	13540	6190

THE PERIOD: AC-FT 89,140

13050000 DIVERSIONS (7 canals) FROM HENRYS FORK BETWEEN ASHTON AND ST. ANTHONY GAGING STATIONS, ID

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL							24130	31349	36645	37781	23493	16213
MEAN							804	1011	1222	1219	758	540
MAX							1280	1240	1500	1410	1140	735
MIN							541	701	924	904	594	342
AC-FT							47860	62180	72690	74940	46600	32160

THE PERIOD: AC-FT 336,430

13055500 DIVERSIONS (20 canals) FROM TETON RIVER BETWEEN ST. ANTHONY GAGING STATION AND MOUTH, ID

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL							4758	15456	21220	17680	10271	8222
MEAN							159	499	707	570	331	274
MAX							590	563	917	714	440	359
MIN							59	362	523	341	260	190
AC-FT							9440	30660	42090	35070	20370	16310

THE PERIOD: AC-FT 153,940

13056000 DIVERSIONS (4 canals) FROM HENRYS FORK BETWEEN ST. ANTHONY AND REXBURG GAGING STATIONS, ID

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL							24681	22670	23857	20656	15912	10077
MEAN							823	731	795	666	513	336
MAX							1050	1050	947	785	601	439
MIN							500	629	655	470	428	234
AC-FT							48950	44970	47320	40970	31560	19990

THE PERIOD: AC-FT 233,760

SMALLER RESERVOIRS IN HENRYS FORK BASIN

13039000 HENRYS LAKE.--Lat 44°35'51", long 111°21'10", in SW¼NW¼ sec.26, T.15 N., R.43 E., Fremont County, Hydrologic Unit 17040202, at dam on Henrys Fork, 5.2 mi (8.4 km) south of former Lake, Idaho, Post Office. Drainage area, 99.0 mi^2 (256.4 km^2), including 6.2 mi^2 (16.1 km^2) of Dry Creek basin. Period of record, June 1923 to current year (fragmentary). Nonrecording gage. Datum of gage is 6,457.16 ft (1,968.142 m) above mean sea level (levels by Bureau of Reclamation). Current year: Maximum contents observed, 91,800 acre-ft (113 hm^3) June 13 (gage height, 16.90 ft or 5.151 m); minimum observed, 59,700 acre-ft 73.6 hm^3) Aug. 25 (gage height, 11.82 ft or 3.603 m). Period of record: Maximum contents observed, 92,100 acre-ft (114 hm^3) June 26, 1969 (gage height, 16.95 ft or 5.166 m); minimum observed, 140 acre-ft (173,000 m^3) Nov. 8, 1934 (gage height, 0.03 ft or 0.009 m).

Reservoir is formed on natural lake by concrete dam supported by downstream earth-fill dam; storage began Sept. 21, 1922; dam completed July 1923. Capacity, 90,420 acre-ft (111 hm^3) between gage heights 0.0 (low-water level of Henrys Lake prior to construction of dam) and 16.7 ft or 5.09 m (top of 4.7-ft or 1.43-m flashboards on spillway). Floodwaters of Dry Creek are diverted into Henrys Lake at times (some diverted during water year 1976). Water used for irrigation near St. Anthony. Gage read occasionally. Records given herein represent usable contents. Capacity table furnished by North Fork Reservoir Co.

13046500 GRASSY LAKE.--Lat 44°07'45", long 110°49'05", in NE¼ sec.18, T.48 N., R.116 W., Teton County, Hydrologic Unit 17040202, in gatehouse at dam 0.4 mi (0.6 km) upstream from mouth on Grassy Creek, which is tributary to headwaters of Falls River, and 25.4 mi (40.9 km) northwest of Moran, Wyo. Drainage area, 10.4 mi^2 (26.9 km^2), including basin of Cascade Creek, from which water is diverted into Grassy Lake. Period of record, October 1939 to current year. Mercury pressure gage. Datum of gage is mean sea level (levels by Bureau of Reclamation). Current year: Maximum contents observed, 15,000 acre-ft (18.5 hm^3) June 7, 10, 14, 15, 23, 28. Maximum elevation observed, 7,209.45 ft or 2,197.440 m June 10, 14, 15; minimum contents observed, 6,810 acre-ft (8.40 hm^3) Sept. 19, 26 (elevation, 7,179.10 ft or 2,188.190 m). Period of record: Maximum contents observed, 15,400 acre-ft (19.0 hm^3) July 2, 1943 (elevation, 7,210.85 ft or 2,197.867 m); no contents Oct. 2-5, 1940.

Reservoir is formed by earth-fill, rock-faced dam; storage began Oct. 18, 1939. Capacity, 15,200 acre-ft (18.7 hm^3) between elevations 7,135.0 ft or 2,174.75 m (sill of trashrack) and 7,210.0 ft or 2,197.61 m (crest of spillway). Water is used for irrigation of lands in Fremont-Madison irrigation district, Idaho. Gage read about twice monthly. Records given herein represent usable contents. Gage-height record and capacity table furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

	GAGE HEIGHT (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
		HENRYS LAKE			GRASSY LAKE	
SEPT. 30	-	a81,300	-	-	a10,300	-
OCT. 31	-	a81,100	+200	-	a10,300	0
NOV. 30	-	a81,200	+100	-	a10,300	0
DEC. 31	-	a82,200	+1,000	-	a10,400	+100
CAL YR 1976	-	-	+300	-	-	0
JAN. 31	-	a84,200	+2,000	7,194.15	10,500	+100
FEB. 28	-	a84,600	+400	7,194.45	10,600	+100
MAR. 31	-	a86,700	+2,100	-	a10,900	+300
APR. 30	-	a89,400	+2,700	-	a11,400	+500
MAY 31	-	a89,800	+400	7,206.50	14,100	+2,700
JUNE 30	-	a86,800	-3,000	7,207.90	14,500	-400
JULY 31	-	a68,700	-18,100	-	a8,810	-5,690
AUG. 31	-	a59,900	-8,800	7,179.35	6,870	-1,940
SEPT. 30	-	a60,200	+300	-	a6,850	-20
WTR YR 1977	-	-	-21,100	-	-	-3,450

a No gage-height record.

13057000 SNAKE RIVER NEAR MENAN, ID

LOCATION.--Lat 43°45'10", long 111°58'50", in SW¼NW¼ sec.22, T.5 N., R.38 E., Jefferson-Madison County line, Hydrologic Unit 17040201, at county bridge 2.0 mi (3.2 km) north of Menan.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 06...	1030	3600	235	8.1	8.0	9.0	5	8.8	91	37	70	--
NOV 04...	1015	2300	286	7.9	4.0	7.0	4	9.6	94	19	73	110
DEC 08...	1115	4200	338	8.1	-2.5	2.0	7	10.7	93	2	37	--
JAN 12...	1130	4200	362	8.0	-5.0	.0	4	11.1	91	0	60	--
FEB 25...	1100	2500	289	8.2	-4.0	2.0	4	10.6	92	42	42	110
MAR 23...	1100	2500	333	8.7	4.0	3.0	7	10.3	91	8	<1	--
APR 13...	1030	4500	427	7.4	6.5	7.5	10	9.2	91	8	32	--
MAY 23...	1100	7200	381	8.5	19.0	8.5	6	8.6	88	15	50	--
JUN 28...	1415	6600	264	8.2	26.0	14.0	3	9.1	105	23	25	--
JUL 29...	1130	6100	301	8.0	23.0	17.0	5	8.1	100	24	44	--
AUG 23...	1400	6800	314	7.9	24.5	17.5	3	8.7	108	43	B24	--
SEP 20...	1200	3240	302	7.6	14.0	12.0	2	8.5	96	--	49	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 06...	--	--	--	--	--	--	--	120	0	98	--	--
NOV 04...	12	31	8.5	14	21	.6	2.3	120	0	98	22	10
DEC 08...	--	--	--	--	--	--	--	140	0	115	--	--
JAN 12...	--	--	--	--	--	--	--	160	0	131	--	--
FEB 25...	0	31	8.3	17	24	.7	2.6	150	0	123	22	12
MAR 23...	--	--	--	--	--	--	--	110	12	110	--	--
APR 13...	--	--	--	--	--	--	--	170	0	139	--	--
MAY 23...	--	--	--	--	--	--	--	160	2	135	--	--
JUN 28...	--	--	--	--	--	--	--	160	0	131	--	--
JUL 29...	--	--	--	--	--	--	--	150	0	123	--	--
AUG 23...	--	--	--	--	--	--	2.3	140	0	115	56	--
SEP 20...	--	--	--	--	--	--	--	150	0	123	--	--

B Results based on count outside of ideal colony count range.

13057000 SNAKE RIVER NEAR MENAN, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 06...	20	134	.18	1300	17	.14	.00	.05	.05	.19	.84	.02
NOV 04...	24	173	.24	1070	20	.26	.03	.17	.20	.46	2.0	.04
DEC 08...	17	200	.27	2270	15	.25	.05	.47	.52	.77	3.4	.01
JAN 12...	17	205	.28	2320	4	.23	.01	.08	.09	.32	1.4	.02
FEB 25...	27	191	.26	1290	3	.28	.02	.05	.07	.35	1.6	.03
MAR 23...	27	189	.26	1280	5	.19	.06	.27	.33	.52	2.3	.03
APR 13...	14	245	.33	2980	32	.30	.07	.37	.44	.74	3.3	.09
MAY 23...	10	223	.30	4340	6	.10	.03	.00	.00	.10	.44	.02
JUN 28...	10	202	.27	3600	5	.08	.04	.06	.10	.18	.80	.00
JUL 29...	14	195	.27	3210	52	.37	.00	.27	.27	.64	2.8	.03
AUG 23...	14	198	.27	3640	22	.07	.00	.18	.18	.25	1.1	.03
SEP 20...	17	185	.25	1620	11	.22	.00	.25	.25	.47	2.1	.02

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT 06...	3	<10	0	20	240	<100	.0	0	10	1.1	0
NOV 04...	4	<10	0	<10	210	<100	.0	0	10	1.3	0
DEC 08...	3	<10	0	20	240	<100	.2	0	20	.6	0
JAN 12...	4	<10	0	<10	240	<100	.1	0	20	1.9	0
FEB 25...	5	<10	0	40	300	<100	.5	0	50	.9	0
MAR 23...	4	<10	0	30	360	<100	.1	1	60	2.5	0
APR 13...	2	<10	0	60	780	<100	.0	0	70	4.3	0
MAY 23...	2	<10	0	30	190	<100	.1	0	50	1.6	0
JUN 28...	2	<10	0	60	50	<100	.1	0	60	2.1	0
JUL 29...	4	<10	0	<10	240	<100	.0	0	50	2.4	0
AUG 23...	3	<10	10	<10	250	<100	.2	0	20	1.2	0
SEP 20...	3	<10	10	<10	100	<100	.1	0	10	1.7	0

13058000 WILLOW CREEK NEAR RIRIE, ID

LOCATION.--Lat 43°35'35", long 111°46'30", in SE¼NW¼ sec.17, T.3 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on left bank about 1 mi (2 km) upstream from mouth of canyon, 1.5 mi (2.4 km) upstream from Eagle Rock Canal, 2.6 mi (4.2 km) south of Ririe, and at mile 18.5 (29.8 km).

DRAINAGE AREA.--627 mi² (1,620 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1903 to September 1904, October 1916 to September 1925, May to August 1928, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft or 1,506 m (from topographic map). Prior to September 1904, nonrecording gage at site about 1.5 mi (2.4 km) downstream at different datum. October 1916 to June 1921, nonrecording gage, and after June 1921 water-stage recorder at sites about 2 (3 m) and 2.2 mi (3.5 km) upstream at different datums.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 7,300 acres (3,000 hm²) of which about 100 acres (40 hm²) are by withdrawals from ground water (1966 determination). Since the spring of 1924, water has sometimes been diverted from Grays Lake 40 mi (64 km) upstream to Blackfoot Reservoir. Flow regulated by Ririe Reservoir (sta 13057950) beginning December 1975.

AVERAGE DISCHARGE.--25 years (1904, 1917-25, 1963-77), 182 ft³/s (5.154 m³/s), 131,900 acre-ft/yr (163 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,200 ft³/s (119 m³/s) May 15, 1917 (gage height, 16.3 ft or 4.97 m); minimum daily, 0.27 ft³/s (0.008 m³/s) Jan. 6-15, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 5,080 ft³/s (144 m³/s) Feb. 11, 1962, from estimate based on field survey (gage height, 15.0 ft or 4.57 m, from floodmarks); stream reported practically dry during summers of 1899 and 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 554 ft³/s (15.7 m³/s) Feb. 27 (gage height, 6.59 ft or 2.009 m); minimum discharge, 6.0 ft³/s (0.17 m³/s) Feb. 27 (gage height, 1.01 ft or 0.308 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	111	40	29	38	10	13	29	29	50	27	25
2	45	77	29	29	38	10	13	32	29	61	27	24
3	45	77	28	31	30	11	13	32	29	60	27	20
4	66	77	27	29	22	12	12	30	29	60	26	20
5	49	77	28	29	22	12	12	29	30	60	26	20
6	40	77	28	29	22	11	12	29	32	54	26	20
7	48	77	25	29	21	11	12	29	32	48	26	20
8	46	77	25	29	21	11	12	29	32	58	26	20
9	46	77	43	29	21	12	13	29	32	58	26	20
10	47	77	64	29	22	13	15	29	32	57	25	20
11	46	77	72	29	22	14	18	29	32	57	25	20
12	44	77	72	29	22	14	16	29	32	57	25	18
13	11	77	72	29	23	14	16	29	31	57	25	15
14	46	77	65	29	23	14	16	29	31	55	25	15
15	126	76	46	29	24	15	17	29	31	55	25	15
16	146	76	33	38	25	15	17	29	31	55	25	15
17	141	76	33	38	20	14	17	29	32	55	25	15
18	146	76	32	38	15	13	17	29	41	55	25	15
19	80	74	41	38	9.2	13	16	30	42	49	24	14
20	31	74	40	38	9.2	12	18	30	42	41	24	14
21	56	74	30	38	9.6	12	17	30	43	41	24	14
22	58	74	29	39	8.7	14	17	30	43	42	25	15
23	56	72	28	38	9.2	15	17	30	43	41	24	17
24	58	72	29	38	9.2	15	17	30	44	43	25	17
25	113	72	29	38	9.2	14	25	30	43	35	25	17
26	160	72	29	38	9.6	14	29	30	43	27	25	17
27	216	71	30	39	17	13	29	30	42	27	25	17
28	310	70	30	38	17	13	29	29	42	27	24	17
29	216	70	30	38	---	13	29	29	42	27	23	17
30	149	61	30	39	---	13	29	29	42	27	23	17
31	148	---	30	38	---	13	---	29	---	27	24	---
TOTAL	3410	2272	1148	1044	538.9	400	533	915	1078	1465	777	530
MEAN	110	75.7	37.0	33.7	19.2	12.9	17.8	29.5	35.9	47.3	25.1	17.7
MAX	310	111	72	39	38	15	29	32	44	61	27	25
MIN	11	61	25	29	8.7	10	12	29	29	27	23	14
AC-FT	6760	4510	2280	2070	1070	793	1060	1810	2140	2910	1540	1050

CAL YR 1976 TOTAL 90616.89 MEAN 248 MAX 1520 MIN .27 AC-FT 179700
WTR YR 1977 TOTAL 14110.90 MEAN 38.7 MAX 310 MIN 8.7 AC-FT 27990

13058000 WILLOW CREEK NEAR RIRIE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1971 to current year.
INSTRUMENTATION.--Temperature recorder since October 1971.
REMARKS.--No temperature record Nov. 13 to Dec. 9, Apr. 16 to June 8 due to equipment malfunction. Miscellaneous chemical data published for water years 1968-69.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.0°C July 19-22, 1974; minimum, 0.0°C on many days during winter months.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.0°C Aug. 20; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 12...	0940	78	372	8.0	.0	4.5	0	220	34
DEC 10...	1130	71	469	--	-2.0	.5	2	--	--
MAR 15...	0905	16	562	--	-2.0	.0	3	--	--
APR 27...	0820	28	486	--	9.5	6.0	0	--	--
JUN 09...	1215	31	431	--	17.0	12.0	2	190	18
JUL 19...	1620	41	472	--	24.0	17.5	1	--	--
SEP 01...	1045	25	456	--	17.0	14.5	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 12...	56	20	22	17	.6	3.4	230	0	189
DEC 10...	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--
APR 27...	--	--	--	--	--	--	--	--	--
JUN 09...	50	15	19	18	.6	3.0	210	0	172
JUL 19...	--	--	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 12...	29	33	.2	8.7	287	.39	60.4	.28	.07
DEC 10...	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--
APR 27...	--	--	--	--	--	--	--	--	--
JUN 09...	21	27	.2	14	254	.35	21.5	.27	.02
JUL 19...	--	--	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--	--	--

13058000 WILLOW CREEK NEAR RIRIE, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	13.0	8.5	7.5	---	---	1.5	1.0	1.5	0.0	2.5	0.5
2	14.5	12.5	8.5	7.5	---	---	1.5	1.0	1.5	0.0	2.0	1.0
3	15.0	11.5	8.5	7.0	---	---	2.0	0.0	1.5	0.0	2.5	1.0
4	14.0	12.5	8.5	6.5	---	---	1.0	0.0	1.5	0.0	1.5	1.0
5	13.5	12.0	8.0	6.5	---	---	1.0	0.0	1.5	0.0	2.0	0.0
6	14.0	11.0	8.0	6.5	---	---	1.5	0.0	1.5	0.0	2.5	0.5
7	13.5	11.5	7.5	6.0	---	---	0.5	0.0	1.5	0.0	3.0	0.5
8	14.0	11.0	7.5	6.0	---	---	0.5	0.0	1.5	0.0	3.5	1.5
9	13.5	11.5	7.0	6.0	---	---	0.5	0.0	1.5	0.0	4.0	2.0
10	13.5	11.5	6.5	5.5	1.5	0.5	0.5	0.0	1.5	0.0	3.0	1.0
11	13.5	11.5	6.0	5.0	1.5	0.5	0.5	0.0	1.5	0.0	3.0	0.5
12	13.0	11.0	5.0	4.0	1.5	0.0	1.0	0.0	2.0	0.0	3.0	0.5
13	12.0	10.0	---	---	1.5	0.5	1.5	0.5	2.5	0.0	3.0	0.5
14	12.0	10.0	---	---	1.5	0.5	1.0	0.0	2.5	0.0	1.5	0.0
15	12.0	10.0	---	---	1.5	0.5	1.5	0.0	2.0	0.0	1.0	0.0
16	12.5	10.0	---	---	1.5	0.0	2.0	0.0	2.0	0.0	3.0	1.5
17	11.5	10.0	---	---	1.5	0.0	2.0	0.5	2.5	0.0	2.5	1.0
18	10.5	8.5	---	---	1.5	0.0	2.0	0.5	2.5	0.0	2.0	0.5
19	10.0	8.0	---	---	1.0	0.0	1.5	0.0	2.0	0.5	1.5	0.0
20	9.5	7.0	---	---	1.0	0.0	1.5	0.0	2.0	0.5	2.5	0.0
21	10.5	8.0	---	---	1.0	0.0	2.0	0.0	2.5	0.5	3.5	1.0
22	10.0	8.0	---	---	1.5	0.5	1.5	0.5	2.5	0.5	5.0	1.5
23	10.0	8.0	---	---	1.5	0.5	1.5	0.0	2.0	0.5	5.0	2.0
24	10.0	8.0	---	---	1.5	0.5	1.5	0.0	2.0	0.5	5.0	2.5
25	8.5	8.0	---	---	2.0	0.5	1.0	0.0	2.0	0.5	3.5	2.0
26	9.5	7.5	---	---	2.5	1.5	1.5	0.0	2.0	0.5	3.0	1.5
27	9.0	7.5	---	---	2.0	1.0	1.0	0.0	1.0	0.0	4.5	2.0
28	9.0	8.0	---	---	2.0	0.5	1.0	0.0	1.0	0.0	3.0	1.0
29	9.0	8.0	---	---	2.0	0.5	1.0	0.0	---	---	2.0	1.0
30	9.0	7.5	---	---	1.5	0.5	1.0	0.0	---	---	3.5	0.0
31	8.5	7.5	---	---	1.5	0.0	2.0	0.0	---	---	4.5	1.0
MONTH	16.0	7.0	8.5	4.0	2.5	0.0	2.0	0.0	2.5	0.0	5.0	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.5	2.0			---	---	15.5	11.0	18.5	12.0	18.5	13.5
2	4.0	1.0			---	---	15.0	12.0	16.0	12.0	19.0	14.0
3	4.5	1.0			---	---	14.5	11.0	16.0	12.5	18.5	15.0
4	5.5	2.5			---	---	14.5	11.0	17.5	12.5	19.0	14.5
5	7.0	3.0			---	---	17.0	11.5	16.0	12.0	19.0	14.5
6	7.0	3.0			---	---	16.5	11.5	17.5	12.0	18.5	14.5
7	7.5	3.5			---	---	16.5	10.5	17.0	12.5	18.5	14.5
8	8.0	4.0			---	---	16.5	11.5	18.5	12.0	18.0	14.0
9	7.5	4.5			13.0	12.0	16.5	11.5	18.5	12.0	17.0	12.5
10	6.5	3.0			14.0	11.0	17.0	11.0	18.5	12.5	18.0	12.5
11	7.0	2.5			15.0	10.5	16.5	11.0	19.0	13.0	18.0	14.0
12	6.5	2.5			17.0	10.5	17.0	12.0	19.5	12.0	17.5	14.0
13	7.0	2.5			17.0	10.5	17.0	11.5	19.0	13.0	17.0	13.0
14	6.5	3.0			15.5	10.5	17.0	11.0	19.0	13.5	16.5	13.5
15	6.5	2.5			17.0	10.0	17.5	11.5	19.5	14.0	17.0	14.5
16	---	---			17.0	10.0	17.5	12.5	19.5	14.0	16.5	13.5
17	---	---			17.5	10.5	18.0	12.0	18.5	13.5	15.0	13.0
18	---	---			17.0	10.5	18.0	12.0	17.0	15.0	15.5	12.0
19	---	---			17.0	11.0	17.0	11.5	19.5	14.0	15.5	12.5
20	---	---			15.5	11.0	17.0	11.0	20.0	14.0	15.0	13.0
21	---	---			17.0	11.0	14.5	12.0	19.0	14.5	13.5	12.0
22	---	---			17.0	11.0	17.5	11.5	18.5	14.0	13.5	11.5
23	---	---			17.0	10.5	18.0	12.0	18.5	14.5	13.5	11.0
24	---	---			16.0	11.0	14.0	12.5	17.0	14.5	13.5	11.5
25	---	---			17.5	10.5	18.0	12.5	17.0	15.0	13.5	11.5
26	---	---			17.0	11.0	18.5	12.0	17.0	14.0	13.5	11.0
27	---	---			16.0	11.0	16.5	11.5	17.0	15.0	14.5	11.0
28	---	---			17.0	10.5	18.0	12.0	17.5	13.5	14.5	11.5
29	---	---			16.5	11.5	17.5	12.0	18.5	15.5	14.5	12.0
30	---	---			17.5	9.5	16.5	12.5	17.5	15.5	12.0	10.5
31	---	---			---	---	17.5	12.0	17.5	13.5	---	---
MONTH	8.0	1.0			18.0	9.5	18.5	10.5	20.0	12.0	19.0	10.5
YEAR	20.0	0.0										

13060000 SNAKE RIVER NEAR SHELLEY, ID

LOCATION.--Lat 43°24'47", long 112°08'02", in SE¼SW¼ sec.17, T.1 N., R.37 E., Bingham County, Hydrologic Unit 17040201, on right bank 0.3 mi (0.5 km) southeast of Woodville, 2.5 mi (4.0 km) north of Shelley, and at mile 787.8 (1,267.6 km).

DRAINAGE AREA.--9,790 mi² (25,400 km²), approximately, excluding indeterminate nontributary area on Snake River Plain.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1915 to current year (prior to October 1931, irrigation seasons only).

REVISED RECORDS.--WSP 1317: 1916.

GAGE.--Water-stage recorder. Datum of gage is 4,599.0 ft (1,401.78 m) above mean sea level.

REMARKS.--Records excellent except those for winter periods, which are fair. Some regulation by Jackson Lake (see sta 13010500), Palisades Reservoir (see sta 13032450), Island Park Reservoir (see sta 13042000), Henrys Lake (see sta 13039000), and Grassy Lake (see sta 13046500). Diversions above station for irrigation of about 39,000 acres (16,000 hm²) below and about 637,000 acres (258,000 hm²) above station of which about 100,000 acres (40,500 hm²) are by withdrawals from ground water (1966 determination). Considerable water leaks above station into Snake Plain aquifer.

AVERAGE DISCHARGE.--46 years (1932-77), 5,663 ft³/s (160.4 m³/s), 4,103,000 acre-ft/yr (5,059 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,300 ft³/s (1,910 m³/s) June 6, 1976 (gage height, 19.12 ft or 5.172 m); minimum, 288 ft³/s (8.16 m³/s) Nov. 5, 1934 (gage height, 2.22 ft or 0.677 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 75,000 ft³/s or 2,100 m³/s (estimated) June 6, 1894, at former station at Eagle Rock (now Idaho Falls), 7 mi (11 km) upstream from present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,870 ft³/s (251 m³/s) May 27 (gage height, 7.83 ft or 2.386 m); minimum, 1,020 ft³/s (28.9 m³/s) Sept. 28 (gage height, 4.14 ft or 1.262 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27-30, Dec. 18-26, Dec. 29 to Jan. 21, Jan. 22 to Feb. 21)

5.0	1,810
6.0	3,540
8.0	9,680

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3600	2600	5570	5100	3700	2130	1740	2440	4670	5020	4300	3620
2	3570	2600	5730	5100	3800	2220	1820	2690	4350	5120	3730	3320
3	3720	2600	6170	5100	3650	2190	1720	3020	5110	5410	3850	2810
4	3820	2550	6550	5000	3500	2110	1660	3670	5710	5650	4460	2530
5	3950	2570	6630	4900	3350	2040	1460	4220	6220	5430	4970	2470
6	4150	2710	6590	4900	3200	1980	1540	4580	6160	5200	6430	2130
7	4140	2830	6590	4800	3100	1960	1550	4700	5680	4950	7180	2060
8	4050	3040	6570	4750	3000	1910	1550	4780	5440	4530	6910	2050
9	3870	3230	6610	4800	2950	2050	1700	5040	5320	4160	6270	2160
10	3850	3170	6620	4700	3000	2080	2070	5090	5710	4090	5810	2150
11	4030	3160	6540	4400	3000	1960	2460	5460	5870	4050	5230	2210
12	4140	3140	6560	4700	3000	1920	2780	5930	6160	3790	4990	2410
13	4200	3110	6470	5500	3000	1820	3730	5770	6220	3740	5210	2310
14	4280	3300	6480	5800	3000	1840	3950	5130	5840	4370	5700	2190
15	4320	3390	6240	6000	2900	1890	4180	5110	5610	4430	6010	2360
16	4420	3230	6050	6050	2850	1890	4180	5560	5350	4670	6780	2540
17	3960	3370	5870	5800	2800	1950	4100	6110	5190	4750	7010	2590
18	3010	3550	5870	5800	2750	2040	4230	6730	4920	4880	7170	2690
19	2800	3840	5700	5800	2700	2070	4220	7400	5360	5010	6950	2610
20	3000	3870	5600	5500	2600	2070	4050	7940	5700	4950	6710	2510
21	2690	3940	5400	5050	2440	1970	3650	8120	5450	5010	6230	2310
22	2540	4080	5400	4450	2490	1930	3590	8180	5400	5190	5850	2280
23	2530	4070	5500	4100	2520	1900	3940	8250	5480	5990	5170	2210
24	2600	4060	5600	4000	2490	1970	4640	8120	5400	5950	4580	2340
25	2640	4190	5700	3800	2370	2050	4590	8110	5360	6450	4080	2180
26	2700	4430	5640	3650	2270	2030	3860	8470	5300	6630	3770	2030
27	2710	4500	5450	3850	2250	1910	3600	8680	5380	6310	3890	1800
28	2680	4400	5350	4000	2170	1810	4120	8430	5150	5520	3570	1450
29	2680	5200	5250	4000	---	1920	3520	8190	5040	4870	3530	1510
30	2650	5800	5100	3800	---	1870	2920	7570	5000	4970	3520	1460
31	2610	---	5000	3600	---	1770	---	5960	---	4540	3670	---
TOTAL	105910	106530	184400	148800	80850	61250	93120	189450	163550	155630	163530	69290
MEAN	3416	3551	5948	4800	2888	1976	3104	6111	5452	5020	5275	2310
MAX	4420	5800	6630	6050	3800	2220	4640	8680	6220	6630	7180	3620
MIN	2530	2550	5000	3600	2170	1770	1460	2440	4350	3740	3520	1450
AC-FT	210100	211300	365800	295100	160400	121500	184700	375800	324400	308700	324400	137400

CAL YR 1976 TOTAL 3210860 MEAN 8773 MAX 50500 MIN 2530 AC-FT 6369000
WTR YR 1977 TOTAL 1522310 MEAN 4171 MAX 8680 MIN 1450 AC-FT 3020000

13060000 SNAKE RIVER NEAR SHELLEY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-74, 1976 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
NOV 19...	1510	3870	323	3.5	5.0	3	140	17	39
APR 25...	1115	4630	396	25.0	12.0	0	--	--	--
JUN 08...	1430	5310	--	26.0	17.0	--	170	47	48
JUL 18...	1040	4610	318	24.5	18.0	1	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV 19...	11	14	17	.5	2.4	150	0	123	28
APR 25...	--	--	--	--	--	--	--	--	--
JUN 08...	12	11	12	.4	2.0	150	0	123	45
JUL 18...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 19...	11	1.1	16	198	.27	2070	.30	.01
APR 25...	--	--	--	--	--	--	--	--
JUN 08...	9.0	.6	10	212	.29	3040	.10	.02
JUL 18...	--	--	--	--	--	--	--	--

13063000 BLACKFOOT RIVER ABOVE RESERVOIR, NEAR HENRY, ID

LOCATION.--Lat 42°49'00", long 111°30'35", in SE¼NE¼ sec.14, T.7 S., R.42 E., Caribou County, Hydrologic Unit 17040207, on right bank 70 ft (21 m) upstream from railroad bridge immediately upstream from the Monsanto Chemical Company "Haul Road", 5 mi (8 km) upstream from Blackfoot Reservoir flow line, 6 mi (10 km) south of Henry, and 11 mi (18 km) north of Soda Springs.

DRAINAGE AREA.--350 mi² (910 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1914 to September 1925 (no winter records except water year 1915), August 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,260 ft or 1,908 m (from topographic map). Mar. 25, 1914, to Sept. 30, 1914, nonrecording gage at site 3.3 mi (5.3 km) downstream at different datum. Oct. 1, 1915, to Sept. 30, 1925, nonrecording gage at site 4 mi (6 km) downstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Diversions above station for irrigation of about 4,500 acres or 1,820 hm² (1966 determination).

AVERAGE DISCHARGE.--11 years (1915, 1968-77), 172 ft³/s (4.871 m³/s), 6.67 in/yr (169 mm/yr), 124,600 acre-ft/yr (154 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft³/s (60.9 m³/s) Apr. 26, 1974 (gage height, 8.60 ft or 2.621 m); minimum, 22 ft³/s (0.62 m³/s) Aug. 17, 1977 (gage height, 1.36 ft or 0.415 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 507 ft³/s (14.4 m³/s) Apr. 11 (gage height, 4.62 ft or 1.408 m), no peak above base of 600 ft³/s (17.0 m3/s); minimum, 22 ft³/s (0.62 m³/s) Aug. 17 (gage height, 1.36 ft or 0.415 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 28-30; stage-discharge relation affected by ice Nov. 14-15, Nov. 26 to Apr. 7)

1.3	20	5.0	605
1.8	45	6.0	950
2.0	60	7.0	1,360
3.0	172	8.2	1,910
4.0	360		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	103	92	66	57	53	74	84	88	29	28	31
2	104	103	88	67	58	52	74	91	78	45	27	30
3	117	105	90	68	58	52	77	91	74	46	27	30
4	129	105	91	67	57	53	85	90	71	45	27	30
5	116	103	89	65	57	54	105	95	67	50	27	30
6	111	102	88	64	57	56	130	101	65	47	31	31
7	108	101	90	63	57	56	175	117	64	42	31	33
8	106	99	90	62	58	54	230	100	63	39	29	33
9	105	97	86	60	58	52	309	89	48	37	28	31
10	105	95	84	60	56	53	432	83	54	35	27	31
11	104	94	80	60	55	53	449	86	53	35	26	32
12	103	91	75	60	56	53	343	81	44	34	25	32
13	102	93	72	61	56	53	231	74	44	32	24	31
14	102	93	70	63	56	53	182	72	43	31	24	31
15	102	92	70	64	56	53	140	72	40	31	24	32
16	101	94	68	63	56	53	140	75	42	31	24	33
17	101	95	67	62	60	53	142	99	40	30	23	34
18	99	94	67	62	60	53	124	125	40	29	25	33
19	98	92	67	62	60	53	111	135	39	28	29	33
20	98	90	68	62	60	53	102	156	42	28	28	33
21	102	89	68	62	58	55	96	201	47	30	27	34
22	101	91	69	62	56	59	94	161	45	32	27	34
23	102	90	70	61	56	65	92	125	42	31	29	35
24	100	92	72	60	55	70	93	108	41	32	29	37
25	102	90	76	60	54	73	92	114	37	36	33	36
26	110	86	74	59	53	64	92	151	34	39	42	35
27	104	81	74	58	53	71	91	131	32	33	48	35
28	101	84	70	57	54	65	90	153	32	32	40	35
29	103	86	68	56	---	63	88	130	29	31	36	35
30	105	87	67	56	---	65	85	109	28	29	33	40
31	104	---	66	57	---	71	---	97	---	28	32	---
TOTAL	3248	2817	2366	1909	1587	1786	4568	3396	1466	1077	910	990
MEAN	105	93.9	76.3	61.6	56.7	57.6	152	110	48.9	34.7	29.4	33.0
MAX	129	105	92	68	60	73	449	201	88	50	48	40
MIN	98	81	66	56	53	52	74	72	28	28	23	30
CFSM	.30	.27	.22	.18	.16	.17	.43	.31	.14	.10	.08	.09
IN.	.35	.30	.25	.20	.17	.19	.49	.36	.16	.11	.10	.11
AC-FT	6440	5590	4690	3790	3150	3540	9060	6740	2910	2140	1800	1960

CAL YR 1976 TOTAL 78665 MEAN 215 MAX 1890 MIN 41 CFSM .61 IN 8.36 AC-FT 156000
WTR YR 1977 TOTAL 26120 MEAN 71.6 MAX 449 MIN 23 CFSM .21 IN 2.78 AC-FT 51810

13063000 BLACKFOOT RIVER ABOVE RESERVOIR, NEAR HENRY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1968.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 20...	1150	97	355	--	6.0	2.0	0	190	5
DEC 01...	1230	86	515	--	3.0	.0	1	--	--
JAN 18...	0830	62	407	--	-5.5	.0	3	--	--
MAR 08...	0715	54	394	--	-1.0	.0	3	--	--
APR 20...	0935	103	366	--	5.0	5.5	0	--	--
MAY 25...	0655	108	379	8.4	4.0	8.0	60	200	7
JUL 06...	1030	50	323	--	21.5	17.0	0	--	--
AUG 17...	1305	23	282	--	31.0	19.0	3	--	--
SEP 28...	1230	35	347	--	25.0	12.0	1	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 20...	56	13	4.5	5	.1	.8	230	0	189
DEC 01...	--	--	--	--	--	--	--	--	--
JAN 18...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--
MAY 25...	60	13	5.6	6	.2	1.0	240	0	200
JUL 06...	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--
SEP 28...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 20...	11	3.0	.2	9.0	211	.29	55.4	.06	.02
DEC 01...	--	--	--	--	--	--	--	--	--
JAN 18...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--
MAY 25...	12	3.6	.2	9.5	225	.31	65.6	.35	.08
JUL 06...	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--
SEP 28...	--	--	--	--	--	--	--	--	--

13065000 BLACKFOOT RESERVOIR NEAR HENRY, ID

LOCATION.--Lat 43°00'20", long 111°43'00", in sec.12, T.5 S., R.40 E., Caribou County, Hydrologic Unit 17040207, Bureau of Land Management lands, near spillway at right end of Blackfoot Dam on Blackfoot River, 12 mi (19 km) northwest of Henry, and at mile 69.0 (111.0 km).

DRAINAGE AREA.--581 mi² (1,500 km²).

PERIOD OF RECORD.--January 1912 to September 1925, January 1929 to current year (no winter records 1949-59). Monthend contents only for January 1929 to September 1960, published in WSP 1317, 1737. Prior to October 1950 and October 1960 to September 1961, published as Blackfoot-Marsh Reservoir near Henry.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Indian Field Service).

REMARKS.--Water diverted from reservoir for irrigation of about 50,000 acres (20,000 hm²) near Pocatello and on Fort Hall Indian Reservation. Capacity is 313,000 acre-ft (386 hm³) between elevations 6,086 ft or 1,855 m (bottom of outlet tunnel) and 6,118.5 ft or 1,864.92 m (crest of spillway) with provision for additional storage of 100,000 acre-ft (123 hm³) to elevation 6,124 ft (1,866.6 m) by means of flashboards. Storage supplemented by water from Grays Lake beginning May 1924. Storage began in spring of 1910.

COOPERATION.--Capacity table, gage readings and daily contents furnished by Bureau of Indian Affairs.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 350,500 acre-ft (432 hm³) May 2, 9, 1974 (elevation, 6,120.60 ft or 1,865.559 m); minimum observed, 610 acre-ft (0.252 hm³) Sept. 12-15, 19, 21, 22, 1934; minimum elevation observed, 6,088.59 ft (1,855.802 m) Sept. 22, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 271,700 acre-ft (335 hm³) May 1 (elevation, 6,116.06 ft or 1,864.175 m); minimum observed, 103,400 acre-ft (127 hm³) Sept. 30 (elevation, 6,104.70 ft or 1,860.713 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

6,104	94,900	6,116	270,600
6,112	205,400	6,118	304,700
6,114	237,500	6,120.6	350,500

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
AM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	239100	233600	---	241600	---	---	271700	267300	226800	180000	142400
2	---	---	---	---	---	248000	---	271100	267300	226800	177000	141100
3	---	---	---	---	---	---	---	270640	265600	226800	176000	141100
4	---	---	---	---	---	---	---	271500	264800	223700	174800	141100
5	---	---	---	---	---	---	---	269600	264800	221200	174800	136800
6	---	---	---	---	---	---	---	267300	261500	218900	174800	135400
7	243400	---	---	---	---	249800	261000	267300	261500	218100	171900	132500
8	---	---	---	---	---	---	---	267100	259800	216500	171900	131100
9	---	---	---	---	---	250300	---	267000	259800	214100	171000	129600
10	---	---	---	---	---	---	---	267000	257300	212200	171000	128300
11	---	---	---	---	243400	---	---	266000	257300	210600	169600	127000
12	---	---	---	---	---	---	---	265000	257300	209000	169000	128200
13	---	---	---	---	---	---	---	263500	257300	209000	169000	126800
14	241900	---	---	239400	---	---	268100	263500	251300	205700	169000	125500
15	---	---	---	---	---	252000	---	262500	249300	203800	169000	124200
16	---	---	---	---	---	---	---	261100	249300	202400	166100	122100
17	---	---	---	---	---	---	---	260600	248300	200700	164500	120100
18	---	---	---	240100	---	---	---	260600	247400	200600	161000	109700
19	---	252500	---	---	---	---	---	261100	246400	200600	159500	114200
20	240400	---	---	---	---	---	270500	261100	241400	200600	158300	112300
21	---	---	---	---	---	---	---	261100	241400	195600	156800	110400
22	---	---	---	---	---	---	---	264000	241400	195600	156800	109100
23	---	---	---	---	---	255300	---	264000	239900	195600	154100	107800
24	---	---	---	---	---	---	---	263800	238600	190300	154100	106600
25	---	---	---	---	---	---	---	263800	237300	190300	151300	106600
26	---	---	---	---	---	---	---	263800	236300	187300	149800	106000
27	---	---	---	---	---	---	---	267300	236300	185800	149200	105300
28	---	---	---	---	247500	---	---	267600	234200	185800	149200	104700
29	---	---	---	---	---	---	---	268100	234200	185800	146300	104100
30	---	233900	236600	---	---	---	271600	268300	229200	181600	143600	103400
31	239200	---	236800	241500	---	258100	---	268300	---	180000	143600	---
MAX	---	---	---	---	---	---	---	271700	267300	226800	180000	142400
MIN	---	---	---	---	---	---	---	260600	229200	180000	143600	103400
(†)	---	6113.78	---	---	---	6115.25	---	6115.86	6113.49	6110.35	6107.76	6104.70
(‡)	-5700	-5300	+2900	+4700	+6000	+10600	+13500	-3300	-39100	-49200	-36400	-40200

CAL YR 1976........... ‡ -4800
WTR YR 1977........... ‡ -141500

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13066000 BLACKFOOT RIVER NEAR SHELLEY, ID

LOCATION.--Lat 43°15'46", long 112°02'48", in NW¼SW¼NE¼ sec.7, T.2 S., R.38 E., Bingham County, Hydrologic Unit 17040207, on right bank 1.2 mi (1.9 km) downstream from Wolverine Creek, 8.5 mi (13.7 km) southeast of Shelley, and at mile 30.5 (49.1 km).

DRAINAGE AREA.--909 mi² (2,354 km²).

PERIOD OF RECORD.--July 1909 to November 1926, May 1926 to September 1950 (irrigation seasons only), August 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft or 1,417 m (from topographic map). Prior to Aug. 19, 1975, at nearby site at different datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Blackfoot Reservoir (station 13065000) 38.5 mi (61.9 km) upstream. Water diverted from reservoir and several other diversions upstream for irrigation.

AVERAGE DISCHARGE.--19 years (1910-26, 1976-77), 359 ft³/s (10.17 m³/s), 260,100 acre-ft/yr (321 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,030 ft³/s (57.5 m³/s) May 17, 18, 1976 (gage height, 8.14 ft or 2.481 m); maximum gage height, 19.97 ft (6.087 m) Nov. 29, 1975 (backwater from ice); minimum observed discharge, 15 ft³/s (0.42 m³/s) Jan. 23, 1919 (gage height, 2.83 ft or 0.862 m, site and datum then in use).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Aug. 8 (gage height, 7.55 ft or 2.301 m); minimum, 36 ft³/s (1.02 m³/s) Mar. 11 (gage height, 5.31 ft or 1.62 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	346	334	261	151	112	80	92	130	520	939	652	790
2	352	330	257	151	113	75	86	140	710	842	656	790
3	377	326	228	152	113	80	83	150	780	827	738	798
4	356	334	194	152	117	75	92	160	920	826	751	798
5	351	326	178	130	117	77	97	170	925	830	759	790
6	352	326	178	140	117	77	100	176	925	820	710	790
7	353	326	175	145	117	80	129	172	926	819	731	813
8	350	326	175	149	117	83	150	183	926	863	834	898
9	354	322	174	148	117	83	164	205	925	865	517	898
10	356	322	174	144	117	77	138	230	905	857	471	898
11	358	322	172	145	110	69	109	212	800	856	448	898
12	345	322	170	147	90	77	100	208	740	859	448	840
13	348	326	169	150	93	86	100	209	780	801	450	906
14	349	326	169	155	96	75	100	218	780	782	452	906
15	348	330	168	160	97	80	80	480	780	722	532	914
16	351	334	163	160	98	69	83	540	660	717	1050	898
17	352	334	161	160	106	83	83	440	660	837	953	898
18	352	330	160	155	115	83	86	420	660	854	935	906
19	345	335	157	155	118	106	86	340	660	861	948	906
20	345	326	154	150	129	106	77	270	665	906	940	906
21	347	330	149	150	138	109	75	240	665	921	934	898
22	347	334	150	150	135	115	75	245	665	882	918	898
23	344	334	151	150	126	126	69	250	670	796	898	730
24	348	334	152	149	132	121	69	270	670	807	895	723
25	340	338	151	149	129	83	69	295	670	795	898	723
26	336	325	151	144	106	97	70	285	670	779	846	730
27	335	270	151	148	80	106	73	260	679	777	810	738
28	338	270	151	148	83	103	81	235	671	664	783	693
29	334	270	151	130	---	95	100	245	905	650	788	686
30	338	268	151	111	---	86	120	300	944	650	799	700
31	342	---	151	110	---	95	---	355	---	652	790	---
TOTAL	10789	9630	5296	4543	3138	2777	2836	8033	22896	25056	23384	24810
MEAN	348	321	171	147	112	89.6	94.5	259	763	808	754	827
MAX	377	338	261	160	138	126	164	540	944	939	1050	914
MIN	334	268	149	110	80	69	69	130	520	650	448	686
AC-FT	21400	19100	10500	9010	6220	5510	5630	15930	45410	49700	46380	49210

CAL YR 1976 TOTAL 199077 MEAN 544 MAX 2020 MIN 149 AC-FT 394900
WTR YR 1977 TOTAL 143189 MEAN 392 MAX 1050 MIN 69 AC-FT 284000

13068500 BLACKFOOT RIVER NEAR BLACKFOOT, ID

LOCATION.--Lat 43°07'50", long 112°28'35", near E¼ cor. sec.28, T.3 S., R.34 E., Bingham County, Hydrologic Unit 17040207, Fort Hall Indian Reservation, on left bank 11 ft (3 m) upstream from highway bridge, 8 mi (13 km) southwest of Blackfoot, and at mile 3.4 (5.5 km).

DRAINAGE AREA.--1,295 mi² (3,354 km²), including that of Sand Creek whose flow is diverted to Blackfoot River through the Idaho Canal.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1913 to current year (prior to October 1931, summer months only). Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,420 ft or 1,350 m (from river-profile survey). Prior to May 8, 1926, nonrecording gage and May 8, 1926, to June 25, 1937, water-stage recorder at site 0.5 mi (0.8 km) upstream at different datum. June 26, 1937, to Aug. 16, 1963, water-stage recorder at site 175 ft (53 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are poor. Flow regulated by Blackfoot Reservoir (see sta 13065000). Diversions above station for irrigation of about 28,000 acres (11,000 hm²) below and about 32,000 acres (13,000 hm²) above station of which about 900 acres (360 hm²) are by withdrawals from ground water (1966 determination). Part of flow is supplied by waste from Snake River canals.

Diversions to bypass channel, which diverts 5.5 mi (8.8 km) upstream from station, started in April 1964. Figures of combined daily discharges for the river and the bypass channel appear on the following page.

AVERAGE DISCHARGE.--46 years, river only (1932-63), combined river and bypass channel (1964-77), 193 ft³/s (5.466 m³), 139,800 acre-ft/yr (172 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 1,710 ft³/s (48.4 m³/s) Feb. 11, 1962 (gage height, 7.68 ft or 2.341 m); no flow on many days.

Combined river and bypass: Maximum discharge, 2,130 ft³/s (60.3 m³/s) May 5, 1974; no flow June 2-6, July 17, Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 469 ft³/s (13.3 m³/s) Nov. 1 (gage height, 4.49 ft or 1.369 m); maximum gage height, 4.65 ft (1.417 m) Feb. 6, 8, 9 (backwater from ice); no flow June 2-6, July 17, Sept. 10.

Combined river and bypass: Maximum daily discharge, 1,220 ft³/s (34.6 m³/s) Nov. 2; no flow June 2-6, July 17, Sept. 10, 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	462	225	130	110	83	77	6.0	.18	32	73	56
2	154	464	220	135	110	82	78	.90	.00	49	49	35
3	181	457	200	125	110	81	71	15	.00	62	38	16
4	208	449	170	135	110	82	68	27	.00	65	41	12
5	235	440	145	130	110	82	87	21	.00	61	55	4.0
6	242	403	130	125	110	82	110	34	.00	54	92	5.7
7	248	352	150	120	110	82	35	89	1.7	56	133	1.6
8	256	327	150	115	105	82	56	146	.12	58	158	1.7
9	255	327	145	110	105	82	112	139	.54	62	138	.30
10	256	323	140	100	105	82	169	16	26	72	111	.00
11	250	320	135	92	100	82	170	186	67	80	83	4.1
12	256	317	130	100	98	82	180	118	101	51	49	14
13	249	310	130	110	96	83	196	55	116	44	54	22
14	245	304	130	120	96	84	155	22	129	21	55	13
15	268	309	130	130	96	81	163	7.6	138	7.4	51	3.4
16	375	307	130	130	96	77	134	69	114	1.5	65	5.7
17	348	304	125	125	100	85	72	145	72	.00	114	14
18	335	303	120	120	110	77	99	163	39	.39	78	34
19	381	303	120	120	120	69	96	161	13	.08	63	50
20	394	309	120	120	115	76	104	158	12	6.6	89	87
21	396	304	120	115	115	66	139	152	1.9	22	95	129
22	396	285	125	110	130	73	145	130	5.8	36	88	148
23	395	263	125	110	125	85	109	116	17	59	50	157
24	392	259	130	110	100	106	106	97	29	70	2.5	141
25	383	258	135	110	94	115	94	92	36	83	2.0	145
26	377	230	150	110	90	94	90	99	26	100	7.4	137
27	376	180	155	110	88	89	59	97	8.4	98	41	134
28	403	200	140	110	85	89	41	94	10	105	73	128
29	433	230	135	110	---	77	19	93	10	97	73	95
30	448	230	125	110	---	76	18	55	4.0	98	69	95
31	450	---	120	110	---	68	---	8.0	---	100	63	---
TOTAL	9721	9529	4405	3607	2939	2554	3052	2611.50	977.64	1650.97	2152.9	1688.50
MEAN	314	318	142	116	105	82.4	102	84.2	32.6	53.3	69.4	56.3
MAX	450	464	225	135	130	115	196	186	138	105	158	157
MIN	136	180	120	92	85	66	18	.90	.00	.00	2.0	.00
AC-FT	19280	18900	8740	7150	5830	5070	6050	5180	1940	3270	4270	3350

CAL YR 1976 TOTAL 88650.00 MEAN 242 MAX 629 MIN 25 AC-FT 175800
WTR YR 1977 TOTAL 44888.51 MEAN 123 MAX 464 MIN .00 AC-FT 89040

13068500 BLACKFOOT RIVER NEAR BLACKFOOT, ID--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF BLACKFOOT RIVER AND BYPASS CHANNEL NEAR BLACKFOOT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	1210	364	171	115	83	77	6.0	.18	32	84	58
2	191	1220	352	177	115	82	78	.90	.00	51	52	35
3	240	1180	333	166	115	81	71	29	.00	66	38	16
4	303	1150	273	175	115	82	68	36	.00	73	41	12
5	366	1120	213	167	115	82	92	21	.00	68	57	4.0
6	376	964	189	160	115	82	142	37	.00	58	132	5.7
7	383	786	215	150	115	82	35	127	1.7	60	231	1.6
8	396	710	213	140	110	82	56	259	.12	61	271	1.7
9	400	709	207	130	110	82	138	243	.96	65	212	.30
10	413	699	194	115	110	82	247	150	46	78	138	.00
11	400	685	183	104	105	82	253	323	152	96	90	4.1
12	403	669	177	115	103	82	273	180	209	61	49	14
13	384	643	176	130	101	83	338	65	225	48	54	22
14	379	629	176	145	102	84	262	22	219	21	55	13
15	531	648	174	160	104	81	247	7.6	222	7.4	58	3.4
16	856	635	171	157	111	77	176	75	169	1.5	87	5.7
17	786	629	167	149	117	85	72	204	87	.00	188	14
18	742	628	161	143	130	77	108	252	39	.39	106	34
19	927	627	157	138	141	69	104	240	13	.08	67	55
20	960	643	158	135	134	76	115	235	12	6.6	89	108
21	980	622	158	127	138	66	193	219	1.9	22	95	174
22	987	548	163	121	158	73	224	169	5.8	38	88	204
23	980	471	163	120	146	86	158	141	17	63	50	217
24	963	460	169	119	116	117	161	106	29	75	2.5	184
25	923	458	177	118	95	126	136	98	36	91	2.0	182
26	887	405	196	117	90	95	120	110	26	123	7.4	163
27	894	277	207	116	88	89	72	108	8.4	136	44	156
28	1000	324	185	116	85	89	48	102	10	145	81	146
29	1100	358	172	115	---	77	19	102	10	130	80	97
30	1160	370	164	115	---	76	18	57	4.0	122	74	98
31	1190	---	160	115	---	68	---	8.0	---	120	66	---
TOTAL	20661	20477	6167	4226	3199	2578	4103	3732.50	1544.06	1918.97	2688.9	2028.50
MEAN	666	683	199	136	114	83.2	137	120	51.5	61.9	86.7	67.6
MAX	1190	1220	364	177	158	126	338	323	225	145	271	217
MIN	161	277	157	104	85	66	18	.90	.00	.00	2.0	.00
AC-FT	40980	40620	12230	8380	6350	5110	8140	7400	3060	3810	5330	4020

WTR YR 1977 TOTAL 73323.93 MEAN 201 MAX 1220 MIN .00 AC-FT 145400

13068500 BLACKFOOT RIVER NEAR BLACKFOOT, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970, 1972 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1966, 1968-69.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
NOV								
08...	1605	326	400	--	15.0	7.0	--	--
10...	1105	323	379	8.1	11.0	9.0	180	25
DEC								
28...	1110	140	590	--	-1.0	.0	--	--
FEB								
02...	0855	110	553	--	-8.0	.5	--	--
MAR								
16...	0855	72	616	--	3.0	2.0	--	--
APR								
26...	0935	93	412	--	12.0	11.0	--	--
MAY								
03...	1252	.50	347	--	18.5	16.0	--	--
JUL								
15...	1300	7.8	389	--	37.5	23.5	180	24
AUG								
31...	1310	70	456	--	25.0	16.5	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV									
08...	--	--	--	--	--	--	--	--	--
10...	46	16	15	15	.5	3.0	190	156	28
DEC									
28...	--	--	--	--	--	--	--	--	--
FEB									
02...	--	--	--	--	--	--	--	--	--
MAR									
16...	--	--	--	--	--	--	--	--	--
APR									
26...	--	--	--	--	--	--	--	--	--
MAY									
03...	--	--	--	--	--	--	--	--	--
JUL									
15...	44	16	11	12	.4	2.3	190	156	31
AUG									
31...	--	--	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV								
08...	--	--	--	--	--	--	--	--
10...	13	.8	16	232	.32	202	.04	.04
DEC								
28...	--	--	--	--	--	--	--	--
FEB								
02...	--	--	--	--	--	--	--	--
MAR								
16...	--	--	--	--	--	--	--	--
APR								
26...	--	--	--	--	--	--	--	--
MAY								
03...	--	--	--	--	--	--	--	--
JUL								
15...	10	.5	10	219	.30	4.61	.05	.04
AUG								
31...	--	--	--	--	--	--	--	--

MONTHLY SUMMARY OF DIVERSIONS FROM SNAKE RIVER

13059500 DIVERSION FROM SNAKE RIVER BETWEEN HEISE AND SHELLEY GAGING STATIONS, ID

Between Heise and Shelley gaging stations, 47 canals divert water from Snake River for irrigation; of these, 36 divert above mouth of Henrys Fork. Records available during each irrigation season from 1919 to current year. Three of the canals are equipped with water-stage recorders, the others with nonrecording gages, most of which are read about once daily. Discharge combined to show total diverted flow. Records include Riley ditch which diverts 1.5 mi (2.4 km) above Heise gaging station. Records furnished by watermaster of Water District 01. Only monthly totals are published beginning water year 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL							25714.00	202000	249230	242050	198480	145590
MEAN							857	6516	8308	7808	6403	4853
MAX							6100	7840	9610	8570	7690	5660
MIN							.00	5330	7770	6490	5390	3720
AC-FT							51000	400700	494300	480100	393700	288800

THE PERIOD: AC-FT 2,108,600

13069000 DIVERSIONS FROM SNAKE RIVER BETWEEN SHELLEY AND BLACKFOOT GAGING STATIONS, ID

Between Shelley and Blackfoot gaging stations, 13 canals divert water from Snake River for irrigation of 158,000 acres (63,900 hm²) of land. Records available during each irrigation season from 1919 to current year. The two largest canals are equipped with recorders, the others with nonrecording gages most of which are read about once daily. Discharge combined to show total diverted flow. Records furnished by watermaster of Water District 01. Only monthly totals are published beginning water year 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL							29730.00	85410	96620	97610	72270	47700
MEAN							991	2755	3221	3149	2331	1590
MAX							3220	3230	3500	3320	2790	2010
MIN							.00	2480	2950	2170	1920	1010
AC-FT							58970	169400	191600	193600	143300	94610

THE PERIOD: AC-FT 851,480

13069500 SNAKE RIVER NEAR BLACKFOOT, ID

LOCATION.--Lat 43°07'31", long 112°31'06", in SE¼SE¼ sec.30, T.3 S., R.34 E., Bingham County, Hydrologic Unit 17040206, on right bank 0.3 mi (0.5 km) downstream from highway bridge, 0.7 mi (1.1 km) downstream from Blackfoot River, 10 mi (16 km) southwest of Blackfoot, and at mile 750.1 (1,206.9 km).

DRAINAGE AREA.--11,310 mi^2 (29,290 km^2), approximately, excluding indeterminate nontributary area on Snake River Plain.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1910 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "at Clough ranch, near Blackfoot" 1924-45.

GAGE.--Water-stage recorder. Datum of gage is 4,399.83 ft (1,341.068 m) above mean sea level. Prior to July 6, 1913, nonrecording gages about 0.1 mi (0.2 km) upstream at datum about 1.00 ft (0.3 m) higher. July 6, 1913, to Aug. 19, 1962, water-stage recorder at site 0.1 mi (0.2 km) upstream at datum 1.00 ft (0.3 m) higher.

REMARKS.--Records excellent except those for period of no gage-height record, which are good. Flow regulated by Jackson Lake (see sta 13010500), Palisades Reservoir (see sta 13032450), Henrys Lake (see sta 13039000), Grassy Lake (see sta 13046500), Island Park Reservoir (see sta 13042000), and Blackfoot Reservoir (see sta 13065000), having a combined capacity of 2,883,000 acre-ft (3,550 hm^3). Diversions above station for irrigation of about 121,000 acres (49,000 hm^2) below and about 832,000 acres (337,000 hm^2) above station of which about 155,000 acres (62,700 hm^2) are by withdrawals from ground water (1966 determination). Considerable water leaks above the station into the Snake Plain aquifer.

AVERAGE DISCHARGE.--67 years, 4,811 ft^3/s (136.2 m^3/s), 3,486,000 acre-ft/yr (4,298 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,500 ft^3/s (1,520 m^3/s) June 7, 1976 (gage height, 15.44 ft or 4.706 m, site and datum then in use); minimum, 111 ft^3/s (3.14 m^3/s) Nov. 10, 1934 (gage height, 0.80 ft or 0.244 m, site and datum then in use).

EXTREMES OUTSIDE PERIOD OF RECORD.--Late in summer of 1905 there was no flow in Snake River for a distance of 10 mi (16 km) in vicinity of Blackfoot. Aug. 9, 1905, discharge of Snake River just below mouth of Blackfoot River was 39 ft^3/s (1.10 m^3/s), supplied by ground-water inflow a short distance upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,350 ft^3/s (1,798 m^3/s) Dec. 25 (gage height, 5.83 ft or 1.777 m); minimum, 160 ft^3/s (4.53 m^3/s) May 2 (gage height, 0.96 ft or 0.293 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 26				Apr. 27 to Sept. 30			
3.0	1,840	7.0	9,700	2.2	860	7.0	9,220
4.0	3,230	9.0	15,900	3.0	1,630	9.0	15,700
5.0	4,920	11.5	26,100	4.0	2,920	12.0	28,600
				5.0	4,600	15.0	49,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2500	3080	5310	4900	3330	2010	1550	203	2300	1610	1400	1720
2	2440	3080	5390	4730	3690	2060	1600	167	1500	1730	1100	1590
3	2750	3060	5630	4850	3440	2060	1590	175	1540	1900	800	1410
4	2940	3010	6010	4720	3290	2020	1460	210	1970	2190	1300	1370
5	3200	2980	6070	4670	3110	1930	1350	617	2490	2230	1700	1470
6	3400	3290	6080	4620	3000	1870	1090	1380	2610	2080	2800	1280
7	3520	3300	6050	4260	2860	1840	1050	1780	2320	1870	3900	996
8	3570	3320	6060	4470	2810	1830	1050	2140	1880	1520	4000	953
9	3510	3550	6050	4510	2800	1640	1110	2350	1820	1190	3300	953
10	3410	3550	6090	4230	2780	1920	1470	2480	2030	902	2700	1070
11	3420	3520	6060	4010	2860	1870	1810	2720	2620	893	2200	632
12	3610	3510	6010	4000	2800	1720	2120	3080	2930	703	2050	527
13	3720	3460	5990	5100	2830	1790	2850	3130	3300	509	2200	571
14	3780	3520	5960	5460	2870	1640	3400	2660	3060	646	2620	539
15	3900	3670	5850	5570	2730	1690	3520	2320	2740	927	2950	380
16	4380	3700	5640	5650	2720	1720	3610	2650	2520	1150	3360	533
17	4240	3640	5480	5360	2670	1760	3380	3300	2280	1400	4230	725
18	3480	3770	5440	5400	2620	1810	3400	3990	2030	1500	4280	860
19	2800	4030	5360	5300	2530	1880	3220	4550	1850	1600	4340	865
20	2830	4160	5230	4870	2480	1910	2970	5170	2460	1650	4100	754
21	2790	4160	5110	4320	2410	1840	2500	5580	2330	1700	3880	761
22	2590	4230	5170	3840	2420	1770	2140	5590	2220	1900	3580	682
23	2640	4210	5200	3740	2450	1760	1720	5640	2170	2400	3180	789
24	2900	4180	5240	3790	2440	1760	2090	5400	2160	2700	2630	783
25	3010	4240	5440	3460	2370	1890	2070	5390	2200	3000	2150	844
26	3110	4330	5500	3360	2210	1860	1690	5540	2160	3150	1870	769
27	3170	4320	5190	3640	2180	1810	825	5970	2010	3100	1900	675
28	3060	3910	5080	3850	2070	1760	1070	5850	1850	2300	1780	616
29	3100	4350	4990	3810	---	1620	674	5570	1620	1800	1630	385
30	3160	5460	4780	3550	---	1710	390	5130	1600	1700	1630	552
31	3080	---	4580	3390	---	1680	---	3870	---	1600	1660	---
TOTAL	100010	112590	172040	137430	76770	56650	58969	104602	66570	53550	81220	26076
MEAN	3226	3753	5550	4433	2742	1827	1966	3374	2219	1727	2620	869
MAX	4380	5460	6090	5650	3690	2080	3610	5970	3300	3150	4340	1720
MIN	2440	2980	4580	3360	2070	1620	390	167	1500	509	800	380
AC-FT	198400	223300	341200	272600	152300	112400	117000	207500	132000	106200	161100	51720

CAL YR 1976 TOTAL 2832980 MEAN 7740 MAX 42900 MIN 1110 AC-FT 5619000
WTR YR 1977 TOTAL 1046477 MEAN 2867 MAX 6090 MIN 167 AC-FT 2076000

NOTE.--No gage-height record July 16 to Aug. 16.

SNAKE RIVER MAIN STEM

13069500 SNAKE RIVER NEAR BLACKFOOT, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-73, 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
08...	1320	3290	330	--	13.5	9.0	0	--	--
23...	1140	4210	350	8.2	2.5	4.0	0	160	21
DEC									
28...	0835	5010	337	--	-14.0	.0	1	--	--
FEB									
02...	1100	3540	361	--	-5.0	.0	40	--	--
MAR									
16...	1010	1720	390	--	5.0	4.0	0	--	--
APR									
26...	1045	1620	441	--	12.0	14.0	1	--	--
MAY									
03...	1025	163	511	--	18.0	14.5	1	--	--
JUN									
03...	1230	1730	331	--	22.0	17.0	--	180	49
JUL									
15...	1055	933	436	--	29.5	19.5	1	--	--
AUG									
31...	1130	1620	363	--	25.0	14.5	1	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV									
08...	--	--	--	--	--	--	--	--	--
23...	32	12	.8	15	219	.30	2490	.48	.03
DEC									
28...	--	--	--	--	--	--	--	--	--
FEB									
02...	--	--	--	--	--	--	--	--	--
MAR									
16...	--	--	--	--	--	--	--	--	--
APR									
26...	--	--	--	--	--	--	--	--	--
MAY									
03...	--	--	--	--	--	--	--	--	--
JUN									
03...	46	9.7	.6	9.4	221	.30	1030	.09	.01
JUL									
15...	--	--	--	--	--	--	--	--	--
AUG									
31...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV									
08...	--	--	--	--	--	--	--	--	--
23...	44	12	15	17	.5	2.4	170	0	139
DEC									
28...	--	--	--	--	--	--	--	--	--
FEB									
02...	--	--	--	--	--	--	--	--	--
MAR									
16...	--	--	--	--	--	--	--	--	--
APR									
26...	--	--	--	--	--	--	--	--	--
MAY									
03...	--	--	--	--	--	--	--	--	--
JUN									
03...	49	13	12	13	.4	2.1	160	0	131
JUL									
15...	--	--	--	--	--	--	--	--	--
AUG									
31...	--	--	--	--	--	--	--	--	--

13072000 PORTNEUF RIVER NEAR PEBBLE, ID

LOCATION.--Lat 42°47'12", long 111°58'47", in SE¼NW¼ sec.26, T.7 S., R.38 E., Caribou County, Hydrologic Unit 17040208, on right bank 90 ft (27 m) downstream from county bridge, 4.8 mi (7.7 km) upstream from Pebble Creek, 3.5 mi (5.6 km) north of Pebble, and at mile 57.8 (93.0 km).

DRAINAGE AREA.--260 mi² (670 sq² km), approximately.

PERIOD OF RECORD.--October 1910 to July 1913, October 1968 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 5,301.27 ft (1,615.827 m) above mean sea level. October 1910 to July 1913 nonrecording gage 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records fair. Flow regulated by Portneuf Reservoir (capacity, 23,695 acre-ft or 29.2 hm³) and Chesterfield Reservoir on Twenty-Four Mile Creek (capacity, 685 acre-ft or 0.845 hm³). Diversions above station for irrigation of about 14,000 acres (5,700 hm²) of which about 4,800 acres (1,900 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--11 years (1911-12, 1969-77), 107 ft³/s (3.030 m³/s), 77,520 acre-ft/yr (95.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 624 ft³/s (17.7 m³/s) Jan. 31, 1911 (gage height, 6.00 ft or 1.829 m, site and datum then in use); minimum discharge, 9.0 ft³/s (0.26 m³/s) Aug. 23, 1977 (gage height, 1.30 ft or 0.396 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 220 ft³/s (6.23 m³/s) Mar. 24 (gage height, 2.97 ft or 0.905 m); maximum gage height, 4.10 ft (0.250 m) June 10-11; minimum discharge, 9.0 ft³/s (0.26 m³/s) Aug. 23 (gage height, 1.30 ft or 0.396 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	56	48	55	45	58	43	152	80	88	68	15
2	58	58	49	56	44	58	42	150	76	88	69	16
3	64	57	50	56	43	59	39	146	74	94	64	16
4	67	57	50	55	42	58	40	144	120	100	62	16
5	66	57	50	55	42	58	42	140	118	108	62	16
6	63	57	50	53	42	57	43	142	126	104	65	16
7	60	59	51	52	40	59	45	142	124	92	71	16
8	61	58	52	52	40	59	46	140	120	82	72	19
9	63	59	52	49	40	59	48	137	126	73	66	19
10	63	60	50	47	40	57	47	134	134	68	67	19
11	66	61	51	45	41	53	47	133	136	67	70	19
12	65	60	50	47	41	54	48	126	126	67	68	19
13	62	57	50	47	43	52	50	129	110	64	64	21
14	62	55	49	47	45	47	51	133	116	59	62	21
15	61	58	51	47	46	47	51	136	126	57	61	25
16	64	61	50	48	47	49	51	141	128	57	55	24
17	63	61	50	49	49	48	54	129	122	54	52	23
18	61	60	49	48	53	47	55	107	120	56	43	23
19	61	60	50	48	54	46	56	124	116	57	20	23
20	61	57	48	49	56	45	54	131	114	57	14	25
21	62	55	48	48	59	46	61	120	118	48	13	24
22	62	55	48	49	58	48	116	116	122	47	13	25
23	63	56	50	50	57	50	128	115	112	62	13	27
24	69	56	52	50	57	53	126	112	102	66	12	27
25	70	57	52	50	57	45	128	114	100	68	13	27
26	68	51	53	50	55	44	134	86	94	67	14	27
27	62	46	55	49	54	44	134	100	102	65	15	25
28	59	44	54	49	56	43	136	100	98	68	14	24
29	59	46	53	48	---	40	144	94	96	69	15	24
30	59	48	53	45	---	40	154	92	98	66	15	24
31	56	---	54	44	---	40	---	88	---	66	15	---
TOTAL	1937	1682	1572	1538	1346	1563	2213	3853	3354	2184	1327	651
MEAN	62.5	56.1	50.7	49.6	48.1	50.4	73.8	124	112	70.5	42.8	21.7
MAX	70	61	55	56	59	59	154	152	136	108	72	27
MIN	56	44	48	44	40	40	39	86	74	47	12	15
AC-FT	3840	3340	3120	3050	2670	3100	4390	7640	6650	4330	2630	1290

CAL YR 1976 TOTAL 45440 MEAN 124 MAX 536 MIN 41 AC-FT 90130
WTR YR 1977 TOTAL 23220 MEAN 63.6 MAX 154 MIN 12 AC-FT 46060

13073000 PORTNEUF RIVER AT TOPAZ, ID

LOCATION.--Lat 42°37'30", long 112°05'20", in SE¼ sec.23, T.9 S., R.37 E., Bannock County, Hydrologic Unit 17040208, on right bank 200 ft (60 m) upstream from Bob Smith Creek, 800 ft (240 m) downstream from Topaz siding, 1.5 mi (2.4 km) upstream from diversion dam of Portneuf-Marsh Valley Canal Co., 4 mi (6 km) west of Lava Hot Springs, and at mile 55.5 (89.3 km).

DRAINAGE AREA.--570 mi² (1,480 km²), approximately (includes that of Bob Smith Creek). Mean altitude, 6,080 ft (1,850 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1913 to September 1915, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1347: 1920-22, 1924-25(M). WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,918.00 ft (1,499.006 m) above mean sea level, preliminary, unadjusted. Prior to July 20, 1919, nonrecording gage at site 0.3 mi (0.5 km) downstream at datum 3.0 ft (0.91 m) lower. July 20, 1919, to June 22, 1954, nonrecording gage at site 0.3 mi (0.5 km) downstream at datum 2.00 ft (0.610 m) lower than present datum.

REMARKS.--Records good. Flow regulated by Portneuf Reservoir (capacity, 23,695 acre-ft or 29.2 hm³) and Chesterfield Reservoir on Twenty-Four Mile Creek (capacity, 685 acre-ft or 0.845 hm³). Diversions above station for irrigation of about 29,000 acres (12,000 hm²) of which about 7,400 acres (3,000 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--60 years, 198 ft³/s (5.607 m³/s), 143,500 acre-ft/yr (177 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,120 ft³/s (202 m³/s) Feb. 1, 1963 (gage height, 8.22 ft or 2.505 m), result of highway fill failure 2 mi (3 km) upstream; minimum, 64 ft³/s (1.81 m³/s) Sept. 23, 1966 (gage height, 2.27 ft or 0.692 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 236 ft³/s (6.68 m³/s) May 6 (gage height, 2.60 ft or 0.792 m); minimum, 97 ft³/s (2.75 m³/s) Sept. 28, 29 (gage height, 2.21 ft or 0.674 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	175	164	175	166	166	175	219	185	187	170	118
2	167	175	162	180	162	169	173	221	173	187	171	118
3	186	173	163	180	159	169	167	211	160	192	166	118
4	182	172	165	185	162	166	170	213	160	196	162	115
5	178	171	169	180	156	166	173	215	177	205	160	118
6	177	168	166	175	156	166	170	227	179	197	167	118
7	174	166	168	175	156	167	170	223	191	190	168	120
8	174	164	169	175	156	173	167	213	190	183	171	120
9	176	164	171	170	156	173	167	211	209	185	166	120
10	179	168	166	170	156	170	162	209	211	187	164	120
11	179	169	166	165	156	165	157	208	201	185	166	120
12	183	167	163	165	153	167	153	201	202	186	164	120
13	179	163	165	165	156	173	152	197	195	183	162	118
14	177	164	165	165	159	165	152	193	186	180	158	120
15	177	167	170	165	159	162	148	200	195	180	156	118
16	178	166	170	165	162	170	148	209	201	177	152	113
17	177	166	170	169	159	170	145	212	195	177	147	110
18	178	169	170	169	166	170	140	195	186	178	152	105
19	178	169	170	172	166	170	137	203	188	175	139	105
20	176	168	165	169	169	165	137	211	193	172	115	105
21	176	162	165	172	175	167	138	202	192	175	107	107
22	177	165	165	172	178	173	157	195	176	157	115	107
23	174	162	165	172	169	178	185	193	174	171	120	113
24	180	162	170	166	172	183	186	191	173	178	115	107
25	187	167	175	166	169	175	186	204	177	184	125	105
26	186	164	175	166	172	173	189	195	178	181	125	107
27	181	149	180	166	162	173	186	190	186	177	123	105
28	176	149	175	166	172	170	190	193	192	178	120	102
29	175	154	175	166	---	170	194	187	190	175	118	100
30	174	160	170	162	---	167	205	183	187	172	118	107
31	172	---	170	162	---	170	---	181	---	170	118	---
TOTAL	5498	4958	5222	5270	4559	5261	4979	6305	5602	5620	4480	3379
MEAN	177	165	168	170	163	170	166	203	187	181	145	113
MAX	187	175	180	185	178	183	205	227	211	205	171	120
MIN	165	149	162	162	153	162	137	181	160	157	107	100
AC-FT	10910	9830	10360	10450	9040	10440	9880	12510	11110	11150	8890	6700

CAL YR 1976 TOTAL 95783 MEAN 262 MAX 930 MIN 132 AC-FT 190000
WTR YR 1977 TOTAL 61133 MEAN 167 MAX 227 MIN 100 AC-FT 121300

13073000 PORTNEUF RIVER AT TOPAZ, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 19...	1707	179	801	--	13.5	9.0	0	360	40
NOV 30...	1115	160	933	--	.0	4.0	1	--	--
JAN 17...	1225	168	984	--	.0	5.0	1	--	--
MAR 07...	1202	164	1048	--	14.0	5.0	1	--	--
APR 19...	1215	134	872	--	11.0	12.0	0	--	--
MAY 24...	1150	192	785	8.0	14.5	13.0	62	350	26
JUL 05...	1342	198	731	--	39.5	20.0	0	--	--
AUG 16...	1930	150	736	--	29.0	22.0	0	--	--
SEP 28...	1430	105	867	--	26.0	16.0	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 19...	84	37	32	16	.7	9.7	390	0	320
NOV 30...	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--
MAY 24...	84	35	31	16	.7	8.9	400	0	330
JUL 05...	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--
SEP 28...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 19...	46	34	.2	23	462	.63	223	.87	.01
NOV 30...	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--
MAY 24...	46	37	.2	19	461	.63	239	.56	.04
JUL 05...	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--
SEP 28...	--	--	--	--	--	--	--	--	--

13075000 MARSH CREEK NEAR MCCAMMON, ID

LOCATION.--Lat 42°37'50", long 112°13'30", in NE¼ sec.22, T.9 S., R.36 E., Bannock County, Hydrologic Unit 17040208, on left bank 10 ft (3 m) downstream from abandoned highway bridge, 70 ft (21 m) upstream from county road crossing, 2 mi (3 km) southwest of McCammon, and at mile 11.0 (17.7 km).

DRAINAGE AREA.--355 mi² (919 km²). Mean altitude, 5,630 ft (1,720 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,610 ft or 1,405 m (by barometer). Prior to July 14, 1965, nonrecording gage 10 ft (3 m) upstream at datum.

REMARKS.--Records good. Diversions above station for irrigation of about 19,000 acres (7,700 hm²) of which about 5,500 acres (2,200 hm²) are by withdrawals from ground water and about 5,000 acres (2,000 hm²) are by diversions into Marsh Creek basin from Portneuf River through the Marsh Valley Canal (1966 determination). Part of Birch Creek (tributary to Marsh Creek) diverted into Devil Creek in Bear River basin.

AVERAGE DISCHARGE.--23 years, 83.5 ft³/s (2.36 m³/s), 60,500 acre-ft/yr (74.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,120 ft³/s (31.7 m³/s) Feb. 12, 1962 (gage height, 13.25 ft or 4.039 m); minimum observed, 20 ft³/s (0.57 m³/s) Aug. 5, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft³/s (4.19 m³/s) Mar. 10, 11 (gage height, 4.19 ft or 1.277 m); minimum, 22 ft³/s (0.62 m³/s) Nov. 27 (gage height, 2.67 ft or 0.814 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	80	72	70	72	79	69	34	61	42	40	75
2	76	78	74	71	70	79	68	36	56	40	41	71
3	89	78	75	74	70	77	67	35	54	42	36	72
4	85	78	76	77	71	77	73	36	48	42	28	72
5	83	79	77	75	73	77	77	38	45	47	28	75
6	82	87	76	70	70	79	77	46	44	49	35	70
7	79	83	79	68	71	81	75	57	43	45	34	63
8	78	83	79	74	72	82	70	54	38	42	35	58
9	82	83	81	61	72	84	61	49	66	43	35	54
10	83	83	81	68	74	114	45	45	99	41	35	52
11	81	82	80	65	75	116	59	41	84	41	34	52
12	80	81	78	65	68	127	55	42	83	40	34	53
13	82	81	77	68	76	116	49	39	82	38	35	50
14	80	80	77	70	75	84	47	42	88	39	35	50
15	79	83	77	68	63	83	43	42	69	39	34	72
16	78	87	66	59	60	85	41	55	63	40	36	64
17	78	87	72	73	57	77	41	61	60	37	38	66
18	77	85	72	79	62	73	45	65	50	32	43	68
19	77	86	69	72	61	77	44	86	53	29	53	68
20	79	85	67	69	58	72	45	109	53	27	52	67
21	80	83	64	70	59	76	54	83	51	26	49	77
22	80	86	64	69	60	79	51	92	49	28	54	72
23	80	87	65	71	54	85	47	71	48	32	72	79
24	79	87	67	71	54	89	44	69	44	34	56	79
25	79	89	67	71	67	80	42	74	41	55	83	75
26	79	74	69	71	75	74	41	79	40	50	77	71
27	79	51	72	68	68	73	37	80	40	43	76	69
28	80	70	75	67	77	67	36	81	44	44	74	67
29	80	70	72	67	---	59	34	75	41	41	75	66
30	80	71	70	66	---	62	34	70	42	41	82	70
31	80	---	68	67	---	65	---	63	---	41	80	---
TOTAL	2483	2417	2258	2154	1884	2548	1571	1849	1679	1230	1519	1997
MEAN	80.1	80.6	72.8	69.5	67.3	82.2	52.4	59.6	56.0	39.7	49.0	66.6
MAX	89	89	81	79	77	127	77	109	99	55	83	79
MIN	76	51	64	59	54	59	34	34	38	26	28	50
AC-FT	4930	4790	4480	4270	3740	5050	3120	3670	3330	2440	3010	3960

CAL YR 1976 TOTAL 36003 MEAN 98.4 MAX 322 MIN 34 AC-FT 71410
WTR YR 1977 TOTAL 23589 MEAN 64.6 MAX 127 MIN 26 AC-FT 46790

13075000 MARSH CREEK NEAR MCCAMMON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	WEATHER (WMO CODE NUMBER)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
OCT 19...	1500	77	758	--	14.0	7.0	0	310	0
NOV 30...	0910	70	735	--	-7.0	1.0	1	--	--
JAN 17...	1030	64	799	--	-6.0	1.0	1	--	--
MAR 07...	0955	78	813	--	3.5	4.0	2	--	--
APR 19...	1040	45	947	--	4.5	7.0	0	--	--
MAY 24...	1020	74	933	7.8	15.0	12.0	3	370	22
JUL 05...	1115	46	828	--	22.5	17.0	1	--	--
AUG 16...	1545	37	820	--	34.0	20.0	0	--	--
SEP 28...	1225	67	853	--	22.0	13.5	0	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY, TOTAL (MG/L AS CACO3)
OCT 19...	71	31	47	24	1.2	8.3	380	--	312
NOV 30...	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--
MAY 24...	81	40	66	27	1.5	10	420	0	340
JUL 05...	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--
SEP 28...	--	--	--	--	--	--	--	--	--

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 19...	41	52	.3	35	477	.65	99.2	1.2	.01
NOV 30...	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--
MAY 24...	56	80	.4	31	574	.78	115	.55	.07
JUL 05...	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--
SEP 28...	--	--	--	--	--	--	--	--	--

13075500 PORTNEUF RIVER AT POCATELLO, ID

LOCATION.--Lat 42°52'20", long 112°28'05", in SE¼NW¼ sec.27, T.6 S., R.34 E., Bannock County, Hydrologic Unit 17040208, on left bank 1,400 ft (430 m) downstream from Carson Street Bridge, at Pocatello, 1.2 mi (1.9 km) upstream from Pocatello Creek and at mile 16.8 (27.0 km).
DRAINAGE AREA.--1,250 mi² (3,240 km²), approximately. Mean altitude, 5,850 ft (1,780 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1897, March 1898 to October 1899, August 1911 to current year.
REVISED RECORDS.--WSP 1567: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 4,418.41 ft (1,346.731 m) above mean sea level (U.S. Corps of Engineers datum). May 18, 1897, to Oct. 14, 1899, nonrecording gage at site 1.6 mi (2.6 km) upstream at different datum. Aug. 31, 1911, to May 13, 1927, and Oct. 13, 1927, to June 13, 1928, nonrecording gage 0.3 mi (0.5 km) upstream at different datum. May 14 to Oct. 12, 1927, water-stage recorder near present site at different datum. June 14, 1928, to Sept. 28, 1950, water-stage recorder near Carson Street Bridge, 0.3 mi (0.5 km) upstream at same datum as former nonrecording gages at this site. Sept. 29, 1950, to May 20, 1968, water-stage recorder at Fremont Street site, 1.0 mi (1.6 km) upstream at datum 18.57 ft (5.660 m) higher.
REMARKS.--Records good. Flow regulated by Portneuf Reservoir formed by earth dam completed in 1912 and raised 7 ft (2.1 m) in 1950 (capacity, 23,695 acre-ft or 29.2 hm³; 16,410 acre-ft or 20.2 hm³ prior to 1950) and Chesterfield Reservoir (capacity, 685 acre-ft or 0.845 hm³). Diversions above station for irrigation of about 55,000 acres (22,000 hm²) of which about 13,000 acres (5,300 hm²) are by withdrawals from ground water (1966 determination).
AVERAGE DISCHARGE.--64 years (1913-16, 1918-77), 267 ft³/s (7.561 m³/s), 193,400 acre-ft/yr (238 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft³/s (84.7 m³/s) Feb. 14, 1962 (gage height, 11.35 ft or 3.459 m); minimum, 0.4 ft³/s (0.011 m³/s) July 3, 1961 (gage height, 2.90 ft or 0.884 m).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 469 ft³/s (13.3 m³/s) Oct. 3 (gage height, 4.75 ft or 1.448 m); maximum gage height, 9.99 ft (3.045 m) Jan. 15 (backwater from ice); minimum discharge, 7.5 ft³/s (0.21 m³/s) May 2 (gage height, 2.01 ft or 0.613 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 28 to Sept. 30; stage-discharge relation affected by ice
Nov. 28 to Dec. 1, Dec. 19-25, Dec. 30 to Jan. 1, Jan. 7-16, 29-31)

Oct. 1 to Apr. 18				Apr. 19 to Sept. 30			
2.2	46	7.0	983	1.9	1.0	7.0	935
3.0	167	9.0	1,440	2.2	19	9.0	1,360
5.0	540			3.0	155	10.0	1,600
				5.0	530		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	306	280	270	271	297	287	51	123	60	15	120
2	281	305	286	283	273	299	289	13	108	50	22	112
3	324	305	286	292	271	299	282	41	103	42	44	96
4	300	304	286	295	273	299	281	62	112	36	27	91
5	291	304	290	289	271	294	289	62	93	32	22	78
6	298	305	288	282	271	292	297	53	94	28	20	74
7	295	299	287	270	271	297	293	65	96	27	22	67
8	279	297	290	270	271	304	291	78	78	33	27	58
9	277	297	295	260	271	313	285	58	113	56	29	55
10	302	296	300	250	275	313	271	46	127	42	35	49
11	290	298	293	255	276	338	255	47	173	65	33	46
12	278	299	290	260	275	329	257	47	178	46	42	38
13	286	294	288	275	270	344	247	40	159	49	38	40
14	281	291	288	290	278	326	244	38	155	69	42	37
15	279	295	288	280	280	298	238	37	159	108	72	51
16	277	301	285	260	273	304	233	64	128	67	47	71
17	272	303	278	290	273	304	225	71	88	38	42	72
18	277	302	278	285	275	296	190	86	91	35	47	79
19	288	299	275	280	280	294	164	115	72	46	64	81
20	291	297	270	274	282	295	148	130	115	26	60	88
21	297	297	265	273	288	287	123	177	196	29	53	88
22	301	295	260	273	292	294	108	144	243	33	62	115
23	300	297	260	273	285	311	103	139	220	33	80	118
24	300	297	265	273	278	327	88	118	164	37	91	125
25	305	303	275	272	280	320	79	120	118	32	137	125
26	310	306	283	273	288	301	72	134	79	40	137	123
27	311	249	280	274	287	295	65	169	86	42	135	117
28	310	260	280	270	287	294	56	170	86	29	153	112
29	308	270	275	270	---	282	56	164	106	22	125	120
30	307	260	265	270	---	276	56	157	72	22	117	123
31	307	---	312	270	---	277	---	148	---	25	123	---
TOTAL	9076	8851	8741	8501	7765	9399	5872	2844	3735	1299	1963	2569
MEAN	293	295	282	274	277	303	196	91.7	125	41.9	63.3	85.6
MAX	324	306	312	295	292	344	297	177	243	108	153	125
MIN	254	249	260	250	270	276	56	13	72	22	15	37
AC-FT	18000	17560	17340	16860	15400	18640	11650	5640	7410	2580	3890	5100

CAL YR 1976 TOTAL 146515 MEAN 400 MAX 1380 MIN 57 AC-FT 290600
WTR YR 1977 TOTAL 70615 MEAN 193 MAX 344 MIN 13 AC-FT 140100

13075500 PORTNEUF RIVER AT POCATELLO, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1968-69.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 22...	0940	296	650	4.0	6.0	300	11	70
DEC 03...	1005	294	627	-2.0	1.0	--	--	--
JAN 25...	1000	273	796	-10.5	.0	--	--	--
MAR 11...	1110	336	863	9.0	4.0	--	--	--
APR 19...	0815	163	724	9.5	7.5	--	--	--
MAY 26...	1200	127	733	15.0	13.0	--	--	--
JUL 07...	1440	31	659	29.0	24.5	250	20	49
AUG 16...	1230	47	650	31.0	22.0	--	--	--
SEP 23...	1133	118	684	15.5	11.5	--	--	--

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	ALKALINITY, TOTAL (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 22...	30	34	19	.9	8.5	350	287	37	39
DEC 03...	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--	--	--
MAR 11...	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--
MAY 26...	--	--	--	--	--	--	--	--	--
JUL 07...	30	40	25	1.1	8.6	280	230	37	42
AUG 16...	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 22...	.2	25	426	.58	340	2.6	.05	--
DEC 03...	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--	--
MAR 11...	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--
MAY 26...	--	--	--	--	--	--	--	60
JUL 07...	.3	23	368	.50	30.9	.08	.02	--
AUG 16...	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--

13075900 FORT HALL MICHAUD CANAL NEAR POCATELLO, ID

LOCATION.--Lat 42°56'10", long 112°32'45", in SE¼SW¼ sec.36, T.5 S., R.33 E., Power County, Hydrologic Unit 17040208, Fort Hall Indian Reservation, 5 mi (8 km) downstream from Pocatello Creek and 6 mi (10 km) northwest of Pocatello.

PERIOD OF RECORD.--April 1964 to current year.

GAGE.--Sparling meters at pumping plant.

REMARKS.--Records good. First diversion to this project started April 1964. Flow controlled by pumping plant which lifts water 90 ft (27 m) for irrigation of 8,690 acres (3,520 hm²) of land in Bureau of Indian Affairs project. Sparling meters rated by current-meter measurements.

COOPERATION.--Sparling-meter readings furnished by Bureau of Indian Affairs.

AVERAGE DISCHARGE.--14 years, 40.2 ft³/s (1.138 m³/s), 29,120 acre-ft/yr (35.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 224 ft³/s (6.34 m³/s) July 14, 1969; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	.00	.00	.00	.00	.00	.00	84	100	192	107	82
2	100	.00	.00	.00	.00	.00	.00	81	101	195	107	100
3	100	.00	.00	.00	.00	.00	.00	82	98	192	110	104
4	25	.00	.00	.00	.00	.00	.00	89	99	186	107	106
5	.00	.00	.00	.00	.00	.00	.00	91	100	180	110	104
6	.00	.00	.00	.00	.00	.00	.00	91	99	182	112	100
7	.00	.00	.00	.00	.00	.00	.00	91	99	180	110	99
8	.00	.00	.00	.00	.00	.00	.00	86	99	180	110	99
9	.00	.00	.00	.00	.00	.00	.00	92	93	182	107	99
10	.00	.00	.00	.00	.00	.00	.00	86	102	180	110	100
11	.00	.00	.00	.00	.00	.00	.00	84	100	180	109	100
12	.00	.00	.00	.00	.00	.00	.00	84	102	182	109	99
13	.00	.00	.00	.00	.00	.00	.00	84	101	174	109	98
14	.00	.00	.00	.00	.00	.00	.00	83	101	177	107	99
15	.00	.00	.00	.00	.00	.00	.00	83	101	174	107	99
16	.00	.00	.00	.00	.00	.00	.00	92	95	132	107	98
17	.00	.00	.00	.00	.00	.00	.00	.00	173	88	110	99
18	.00	.00	.00	.00	.00	.00	.00	.00	170	169	111	99
19	.00	.00	.00	.00	.00	.00	.00	.00	172	187	110	82
20	.00	.00	.00	.00	.00	.00	.00	.00	175	187	110	69
21	.00	.00	.00	.00	.00	.00	.00	.00	175	186	111	70
22	.00	.00	.00	.00	.00	.00	.00	.00	180	187	107	70
23	.00	.00	.00	.00	.00	.00	.00	.00	185	186	107	70
24	.00	.00	.00	.00	.00	.00	.00	.00	185	188	107	70
25	.00	.00	.00	.00	.00	.00	.00	.00	192	187	107	23
26	.00	.00	.00	.00	.00	.00	.00	.00	187	186	107	.00
27	.00	.00	.00	.00	.00	.00	27	.00	178	164	93	36
28	.00	.00	.00	.00	.00	.00	84	.00	178	127	79	59
29	.00	.00	.00	.00	---	.00	82	.00	197	109	80	60
30	.00	.00	.00	.00	---	.00	88	.00	195	109	96	60
31	.00	---	.00	.00	---	.00	---	54	---	109	95	---
TOTAL	323.00	.00	.00	.00	.00	.00	281.00	1437.00	4132	5237	3268	2453.00
MEAN	10.4	.000	.000	.000	.000	.000	9.37	46.4	138	169	105	81.8
MAX	100	.00	.00	.00	.00	.00	88	92	197	195	112	106
MIN	.00	.00	.00	.00	.00	.00	.00	.00	93	88	79	.00
AC-FT	641	.00	.00	.00	.00	.00	557	2850	8200	10390	6480	4870

CAL YR 1976 TOTAL 17296.00 MEAN 47.3 MAX 188 MIN .00 AC-FT 34310
WTR YR 1977 TOTAL 17131.00 MEAN 46.9 MAX 197 MIN .00 AC-FT 33980

13076400 MICHAUD CANAL AT AMERICAN FALLS, ID

LOCATION.--Lat 42°46'45", long 112°52'20", in SE¼SE¼ sec.30, T.7 S., R.31 E., Power County, Hydrologic Unit 17040209, 800 ft (244 m) downstream from American Falls Dam at American Falls.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Sparling meter in pipeline at pumping plant.

REMARKS.--Records good. Flow controlled by pumping plant which lifts water from American Falls Reservoir to point in NE¼ sec.32. Project irrigated 8,000 acres (3,240 hm^2) from this canal and 3,810 acres (1,540 hm^2) by pumping from ground water in 1977.

COOPERATION.--Record of pump operation furnished by Falls Irrigation District.

AVERAGE DISCHARGE.--20 years, 29.9 ft^3/s (0.847 m^3/s), 21,660 acre-ft/yr (26.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 154 ft^3/s (4.361 m^3/s) June 16-17, 21-29, 1976; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	.00	.00	.00	.00	.00	.00	55	89	147	68	48
2	34	.00	.00	.00	.00	.00	.00	65	121	147	68	47
3	34	.00	.00	.00	.00	.00	.00	89	121	145	68	34
4	34	.00	.00	.00	.00	.00	.00	84	118	145	59	.00
5	18	.00	.00	.00	.00	.00	.00	67	118	145	59	.00
6	18	.00	.00	.00	.00	.00	.00	67	118	145	59	22
7	18	.00	.00	.00	.00	.00	.00	38	128	144	59	43
8	18	.00	.00	.00	.00	.00	.00	35	128	144	59	43
9	18	.00	.00	.00	.00	.00	.00	35	128	113	71	43
10	18	.00	.00	.00	.00	.00	.00	50	98	121	71	43
11	18	.00	.00	.00	.00	.00	.00	39	60	139	71	43
12	7.0	.00	.00	.00	.00	.00	.00	50	60	135	66	43
13	.00	.00	.00	.00	.00	.00	.00	50	98	141	53	43
14	.00	.00	.00	.00	.00	.00	.00	50	112	139	51	41
15	.00	.00	.00	.00	.00	.00	.00	50	112	139	48	.00
16	.00	.00	.00	.00	.00	.00	.00	50	114	129	66	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	114	129	66	29
18	.00	.00	.00	.00	.00	.00	.00	.00	114	137	66	27
19	.00	.00	.00	.00	.00	.00	.00	.00	114	137	66	27
20	.00	.00	.00	.00	.00	.00	16	.00	147	135	65	34
21	.00	.00	.00	.00	.00	.00	16	.00	147	124	66	27
22	.00	.00	.00	.00	.00	.00	16	.00	147	114	.00	27
23	.00	.00	.00	.00	.00	.00	16	.00	147	105	71	27
24	.00	.00	.00	.00	.00	.00	16	.00	147	105	71	27
25	.00	.00	.00	.00	.00	.00	34	.00	139	70	70	27
26	.00	.00	.00	.00	.00	.00	55	.00	143	56	69	28
27	.00	.00	.00	.00	.00	.00	55	.00	147	70	68	27
28	.00	.00	.00	.00	.00	.00	55	.00	147	85	58	27
29	.00	.00	.00	.00	---	.00	55	.00	147	75	54	27
30	.00	.00	.00	.00	---	.00	55	39	147	69	54	27
31	.00	---	.00	.00	---	.00	---	39	---	69	50	---
TOTAL	269.00	.00	.00	.00	.00	.00	389.00	952.00	3670	3698	1890.00	881.00
MEAN	8.68	.000	.000	.000	.000	.000	13.0	30.7	122	119	61.0	29.4
MAX	34	.00	.00	.00	.00	.00	55	89	147	147	71	48
MIN	.00	.00	.00	.00	.00	.00	.00	.00	60	56	.00	.00
AC-FT	534	.00	.00	.00	.00	.00	772	1890	7280	7330	3750	1750

CAL YR 1976 TOTAL 14090.90 MEAN 38.5 MAX 154 MIN .00 AC-FT 27950
WTR YR 1977 TOTAL 11749.00 MEAN 32.2 MAX 147 MIN .00 AC-FT 23300

13076500 AMERICAN FALLS RESERVOIR AT AMERICAN FALLS, ID

LOCATION.--Lat 42°46'45", long 112°52'45", in SE¼SW¼ sec.30, T.7 S., R.31 E., Power County, Hydrologic Unit 17040206, at outlet gates near right abutment of American Falls Dam on Snake River, at American Falls, and at mile 714.0 (1,148.8 km).

DRAINAGE AREA.--13,580 mi² (35,170 km²), excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--March 1926 to current year.

GAGE.--Nonrecording gage. Prior to July 11, 1977, water-stage recorder at same datum. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by concrete gravity dam with earth dikes at each end; partial storage began in 1926, full storage in 1927. Restricted capacity, 1,125,000 acre-ft (1,390 hm³) between elevations 4,295.66 ft or 1,309.317 m (bottom of outlet gate) and 4,343.20 ft or 1,323.81 m (top of spillway crest elevation). Small amount of dead storage. Water is used for irrigation by canals diverting from Snake River at Minidoka and Milner Dams. Beginning in 1973, due to the condition of the dam, storage has been restricted to the spillway crest level (elevation, 4,343.2 ft or 1,323.81 m) within the capabilities of the outlet gates and the unregulated flow over the spillway. Reservoir was emptied in September 1977 to permit completion of reconstruction of the dam.

COOPERATION.--Reservoir elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,748,000 acre-ft (2,160 hm³) June 21, 1963 (elevation, 4,355.34 ft or 1,327.508 m); minimum since full capacity was 0 acre-ft (1 hm³) Sept. 10-30, 1977; minimum observed gage height, 4,294.90 ft (1,309.086 m) Sept. 14-16.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,127,000 acre-ft (1,390 hm³) Apr. 2 (elevation, 4,343.25 ft or 1,323.823 m); maximum recorded gage height, 4,343.32 ft or 1,323.844 m (wind affected) Apr. 1; no usable storage for many days in September; minimum observed gage height, 4,294.90 ft (1,309.086 m) Sept. 14-16.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262400	357000	511700	778700	987000	1109000	1125000	970200	903800	600000	158100	11700
2	259200	363100	514800	787700	993400	1111000	1125000	958500	896300	583800	147600	9600
3	261100	368100	517700	796200	999000	1115000	1125000	940600	887600	569200	136500	7300
4	261100	372800	521600	804800	1004000	1116000	1126000	929300	874300	554100	123900	5200
5	261400	377400	525900	812500	1008000	1118000	1125000	918300	862500	539700	112800	3800
6	262600	381800	530600	815500	1011000	1119000	1124000	911900	849900	522800	105200	2700
7	262900	386400	536200	821800	1016000	1120000	1123000	907400	837400	510500	99500	1200
8	263300	391900	544400	827800	1021000	1119000	1123000	903400	824400	490200	95600	300.0
9	264000	397800	552600	835100	1026000	1116000	1118000	895500	815100	471400	90100	.00
10	264400	403400	565300	841900	1031000	1116000	1116000	894300	808100	454100	85800	.00
11	264400	409300	576800	847300	1038000	1117000	1111000	893500	799900	439600	80500	.00
12	265900	414200	586800	851800	1042000	1116000	1107000	892300	793300	427000	74200	.00
13	267000	417800	597800	858300	1045000	1115000	1098000	890400	787300	409100	66300	.00
14	267200	420200	609000	873100	1049000	1116000	1097000	881400	782600	391600	60700	.00
15	269800	424700	620400	883700	1053000	1117000	1093000	879000	777200	378400	56400	.00
16	273700	430400	632300	894300	1059000	1117000	1093000	874300	771800	360500	52000	.00
17	281100	435200	643000	905400	1064000	1117000	1082000	871900	769700	342600	50500	.00
18	286000	440200	652800	915500	1070000	1118000	1074000	869200	762400	327400	50500	.00
19	291300	444400	662700	925200	1074000	1121000	1058000	869600	754200	314400	50800	.00
20	296500	450900	673000	933700	1079000	1122000	1065000	871900	745600	303600	51200	.00
21	302200	456000	682000	939800	1085000	1123000	1059000	873100	736900	289500	50000	.00
22	306200	462200	691900	944300	1089000	1124000	1055000	879000	724400	271700	48200	.00
23	311200	467600	700600	948900	1092000	1120000	1047000	877000	717600	254400	46000	.00
24	315600	472500	710000	954300	1095000	1122000	1040000	878600	706900	241500	42700	.00
25	319600	479400	720000	958500	1096000	1122000	1032000	881000	692900	230800	39100	.00
26	326400	486900	728400	962200	1100000	1120000	1021000	884100	677300	222000	34300	100.0
27	332400	492200	738300	966800	1103000	1118000	1013000	892000	662100	207200	29900	.00
28	337600	500000	747400	970200	1106000	1118000	1002000	899000	646600	195800	24800	.00
29	342600	506300	756700	975200	---	1123000	994300	905000	631000	186900	20800	.00
30	347500	508800	763500	979400	---	1123000	982300	909800	614700	178600	17100	.00
31	351700	---	770700	981900	---	1123000	---	909800	---	169000	13500	---
MAX	351700	508800	770700	981900	1106000	1124000	1126000	970200	903800	600000	158100	11700
MIN	259200	357000	511700	778700	987000	1109000	982300	869200	614700	169000	13500	.00
(†)	4320.44	4326.42	4334.55	4339.96	4342.78	4343.17	4339.97	4337.21	4329.95	4311.91	4299.11	4295.30
(‡)	+86.9	+157.1	+261.9	+211.2	+124.1	+17.0	-140.7	-111.9	-255.7	-445.7	-155.5	-13.5

CAL YR 1976............ ‡ -89.5
WTR YR 1977............ ‡ -264.8

† Elevation, in feet, at end of month.
‡ Change in contents, in thousands of acre-feet.

13077000 SNAKE RIVER AT NEELEY, ID

LOCATION.--Lat 42°46'06", long 112°52'42", in NE¼SW¼ sec.31, T.7 S., R.31 E., Power County, Hydrologic Unit 17040209, on right bank 400 ft (122 m) upstream from fish hatchery buildings, 0.9 mi (1.4 km) downstream from American Falls Dam, at mile 713.8 (1,148.5 km). Records computed to show flow at former site in sec.11, T.8 S., R.30 E., 0.5 mi (0.8 km) north of Neeley and 2.5 mi (4.0 km) downstream from present site, by adding inflow between sites. Water-quality sampling site 300 ft (91 m) downstream.

DRAINAGE AREA.--13,600 mi² (35,200 km²), approximately, excluding indeterminate nontributary area on Snake River Plain.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1906 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1317: 1910.

GAGE.--Water-stage recorder. Datum of gage is 4,241.6 ft (1,292.840 m) above mean sea level (levels by Bureau of Reclamation). Prior to Aug. 8, 1910, nonrecording gages and Aug. 8, 1910, to June 6, 1930, water-stage recorder at site 2.5 mi (4.0 km) downstream at different datum. June 7, 1930, to Mar. 19, 1945, water-stage recorder at site 0.4 mi (0.6 km) upstream at datum 0.4 ft (0.12 m) higher.

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir (see sta 13076500) and other reservoirs, having a combined usable capacity of 4,600,000 acre-ft (5,670 hm³). Diversions above station for irrigation of about 1,080,000 acres (437,000 hm²) of which about 228,000 acres (92,000 hm²) are by withdrawals from ground water (1966 determination). Considerable water leaks into the Snake Plain aquifer above the station some of which returns above American Falls Reservoir.

AVERAGE DISCHARGE.--51 years (1927-77), 7,202 ft³/s (204.0 m³/s), 5,218,000 acre-ft/yr (6,430 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 48,400 ft³/s (1,370 m³/s) June 20, 1918 (gage height, 13.5 ft or 4.11 m, site and datum then in use); minimum, 50 ft³/s (1.42 m³/s) Oct. 22, 23, Nov. 14-16, 1941, Oct. 29, 1961, Nov. 6, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,700 ft³/s (331 m³/s) June 29 (gage height, 6.48 ft or 1.975 m); minimum discharge, 2,360 ft³/s (66.8 m³/s) Feb. 16, 17; minimum gage height, 4.10 ft (1.250 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6450	3770	6930	3900	4280	3700	4120	8290	6800	11400	9270	5450
2	6450	3790	6950	3890	3980	3700	4340	8510	7500	11300	9110	5280
3	6440	3790	6960	3930	3990	3670	4350	8570	8690	11500	8950	5070
4	6380	3810	6960	3940	3990	4010	4340	8750	10400	11500	8790	4860
5	6380	3830	6990	3920	4000	4340	4500	8830	10800	11500	8610	4650
6	6440	3830	7000	3930	4010	4340	4560	7940	10500	11400	8450	4480
7	6490	3840	6570	3940	3690	4700	4310	6660	10400	11300	8310	4270
8	6490	3860	5460	3960	3200	5240	4250	6150	10400	11400	8220	3960
9	6460	3860	4390	3980	3200	5250	4750	5970	10000	11400	8140	3820
10	6460	3890	3990	3980	3200	5080	6050	6200	9300	11300	8040	4320
11	6470	3900	4000	3970	3580	4800	6690	6120	8810	11200	7930	4120
12	6470	4030	4020	3980	3860	4940	7290	6110	8420	11100	7780	3110
13	6470	4410	3730	4000	3860	4750	7670	6770	8040	11000	7610	3150
14	6440	4530	3520	4030	3860	4510	7900	7350	7770	10900	7460	3390
15	5730	4550	3540	4050	3860	4340	8090	7330	7610	11200	7320	3390
16	5350	4560	3580	4050	3070	4110	8090	7250	7500	11000	7210	3310
17	5510	4580	3600	4060	2470	3980	8190	7580	7550	11000	7120	3410
18	4060	4600	3610	4070	2620	3970	8230	7790	7740	11000	7110	3670
19	3330	4600	3620	4080	2620	3970	8390	7790	8090	10900	7100	3810
20	3340	4610	3640	4360	2620	3970	8420	7630	8420	10800	7080	3880
21	3360	4630	3640	4540	2640	4240	8020	7410	8520	10600	7080	3840
22	3370	4640	3660	4560	3210	5020	7880	7410	9080	10500	7030	3810
23	3390	4660	3750	4570	4340	5300	7870	7410	9790	10400	6980	3800
24	3400	4670	3810	4570	4520	5300	8030	7220	10300	10200	6860	3830
25	3430	4700	3830	4560	4020	5050	8130	6650	10900	10100	6760	3950
26	3580	5200	3840	4570	3700	4850	8280	6040	11100	10000	6600	4020
27	3700	5710	3860	4580	3700	4650	8370	5890	11300	9920	6430	3960
28	3700	5720	3860	4600	3700	4560	8430	5620	11500	9830	6250	3800
29	3730	6280	3860	4600	---	4070	8090	5440	11600	9700	6040	3680
30	3750	6920	3860	4600	---	3850	8020	5710	11500	9560	5810	3570
31	3760	---	3880	4600	---	3860	---	6440	---	9420	5640	---
TOTAL	156780	135770	140910	130370	99790	138120	205650	218830	280330	334330	231090	119660
MEAN	5057	4526	4545	4205	3564	4455	6855	7059	9344	10780	7455	3989
MAX	6490	6920	7000	4600	4520	5300	8430	8830	11600	11500	9270	5450
MIN	3330	3770	3520	3890	2470	3670	4120	5440	6800	9420	5640	3110
AC-FT	311000	269300	279500	258600	197900	274000	407900	434000	556000	663100	458400	237300

CAL YR 1976 TOTAL 4039490 MEAN 11040 MAX 27600 MIN 2660 AC-FT 8012000
WTR YR 1977 TOTAL 2191630 MEAN 6004 MAX 11600 MIN 2470 AC-FT 4347000

13077000 SNAKE RIVER AT NEELEY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-71, 1973 to current year.
PERIOD OF DAILY RECORD.--
  WATER TEMPERATURES: July to September 1977.
INSTRUMENTATION.--Temperature recorder since July 8, 1977.
REMARKS.--Miscellaneous chemical data published for water years 1966, 1968-69.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPER-ATURE (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	CHEM-ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI-FORM .7UM-MF (COL./ 100 ML)	HARD-NESS (CA,MG) (MG/L)
OCT												
04...	0900	6530	354	8.1	6.0	14.0	8	8.6	97	46	B12	--
NOV												
03...	1030	3800	445	8.1	5.0	8.0	8	12.0	118	15	185	190
DEC												
02...	1128	6950	467	--	2.5	2.0	--	--	--	--	--	--
09...	0945	4860	458	8.1	.0	1.0	10	12.8	105	2	48	--
JAN												
13...	0845	3830	440	8.2	-5.0	1.5	5	12.2	102	0	105	--
FEB												
23...	0840	3830	507	7.9	-1.0	1.0	2	12.0	99	4	B1	210
MAR												
24...	0840	5300	479	8.3	3.0	3.0	4	12.5	108	7	B2	--
APR												
14...	0915	7700	419	8.4	3.0	4.5	6	11.8	106	7	B2	--
21...	0930	7720	408	--	16.0	6.0	--	--	--	--	--	--
MAY												
24...	0957	7410	437	8.4	14.0	11.5	8	9.3	99	10	23	--
JUN												
29...	1020	10300	372	8.1	27.0	19.0	8	8.8	110	19	23	--
JUL												
08...	1030	11560	428	--	21.5	20.0	--	--	--	--	--	--
25...	1445	12900	453	8.1	28.5	21.0	20	9.0	117	16	89	--
AUG												
30...	1245	5820	500	7.8	23.5	17.0	110	12.9	155	35	46	--
SEP												
21...	1330	3860	539	7.9	17.5	13.0	120	13.0	143	46	B435	--

B Results based on count outside of ideal colony count range.

13077000 SNAKE RIVER AT NEELEY, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT												
04...	--	--	--	--	--	--	--	160	0	131	--	--
NOV												
03...	34	51	16	20	18	.6	3.7	190	0	156	41	21
DEC												
02...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	190	0	156	--	--
JAN												
13...	--	--	--	--	--	--	--	230	0	189	--	--
FEB												
23...	13	55	17	21	18	.6	3.7	240	0	197	46	22
MAR												
24...	--	--	--	--	--	--	--	220	0	180	--	--
APR												
14...	--	--	--	--	--	--	--	200	2	168	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
24...	--	--	--	--	--	--	--	180	2	152	--	--
JUN												
29...	--	--	--	--	--	--	--	190	0	156	--	--
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	200	0	164	--	--
AUG												
30...	--	--	--	--	--	--	--	230	0	189	--	--
SEP												
21...	--	--	--	--	--	--	--	250	0	205	--	--

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT												
04...	20	217	.30	3830	17	.03	.12	.34	.46	.49	2.2	.09
NOV												
03...	20	290	.39	2980	20	.27	.01	.46	.47	.74	3.3	.08
DEC												
02...	--	--	--	--	--	--	--	--	--	--	--	--
09...	18	271	.37	3560	19	.26	.02	.20	.22	.48	2.1	.03
JAN												
13...	19	273	.37	2820	1	.40	.05	.25	.30	.70	3.1	.02
FEB												
23...	21	300	.41	3100	0	.53	.05	.00	.01	.54	2.4	.06
MAR												
24...	21	296	.40	4240	4	.43	.12	.28	.40	.83	3.7	.05
APR												
14...	19	275	.37	5720	14	.29	.12	.43	.55	.84	3.7	.05
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
24...	11	253	.34	5060	11	.01	.08	.36	.44	.45	2.0	.05
JUN												
29...	7.8	245	.33	6810	11	.03	.20	.11	.31	.34	1.5	.09
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	--
25...	17	278	.38	9680	18	.23	.21	.33	.54	.77	3.4	.12
AUG												
30...	20	295	.40	4640	203	.52	.07	.69	.76	1.6	7.0	.33
SEP												
21...	23	312	.42	3250	217	1.0	.19	.47	.66	1.7	7.3	.06

13077000 SNAKE RIVER AT NEELEY, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT											
04...	3	<10	0	10	300	<100	.1	0	10	2.1	0
NOV											
03...	2	<10	0	10	250	<100	.0	0	20	2.9	0
DEC											
02...	--	--	--	--	--	--	--	--	--	--	--
09...	3	<10	0	30	200	<100	.0	0	40	2.2	0
JAN											
13...	2	<10	0	20	230	<100	.0	0	30	1.6	0
FEB											
23...	3	<10	20	30	140	<100	.0	1	40	1.1	0
MAR											
24...	2	<10	0	30	140	<100	.0	1	40	1.9	0
APR											
14...	0	<10	10	40	220	<100	.0	0	60	1.7	0
21...	--	--	--	--	--	--	--	--	--	--	--
MAY											
24...	2	<10	0	50	240	<100	.1	0	50	2.3	0
JUN											
29...	3	<10	10	60	150	<100	.1	0	70	1.7	0
JUL											
08...	--	--	--	--	--	--	--	--	--	--	--
25...	5	<10	0	50	90	<100	.4	1	70	1.5	0
AUG											
30...	2	<10	0	10	4200	<100	.2	0	30	4.7	0
SEP											
21...	3	<10	10	<10	4300	<100	.1	0	30	4.0	0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1							---	---	19.5	18.5	15.5	14.5
2							---	---	20.0	18.5	16.0	14.5
3							---	---	19.5	19.0	17.5	15.5
4							---	---	20.0	18.5	18.5	16.0
5							---	---	20.0	19.0	18.5	16.5
6							---	---	20.0	19.0	19.0	17.0
7							---	---	20.0	19.0	19.0	16.5
8							20.5	20.0	20.0	19.5	17.5	16.0
9							20.5	19.5	21.0	19.5	16.0	14.0
10							20.0	19.5	21.0	19.5	16.0	14.0
11							19.5	19.0	20.5	20.0	16.5	14.5
12							20.0	19.0	21.0	20.0	16.5	15.0
13							19.5	19.0	20.5	19.5	16.5	14.5
14							19.5	18.5	20.5	19.5	15.5	14.5
15							19.5	19.0	21.0	19.5	14.5	13.5
16							20.5	19.0	21.5	20.0	14.5	13.0
17							19.5	19.0	21.5	21.0	13.5	12.0
18							20.0	19.0	21.5	20.5	13.0	11.0
19							20.0	19.0	21.0	20.0	13.5	11.5
20							20.5	20.0	21.5	20.5	12.5	11.5
21							21.0	20.0	21.5	20.5	11.5	10.0
22							21.0	20.5	21.5	20.5	11.5	10.0
23							21.0	20.5	21.0	20.5	10.0	8.5
24							21.0	20.0	20.5	19.0	11.0	9.0
25							20.5	20.0	19.0	18.0	12.0	10.0
26							21.0	20.0	18.0	16.0	13.5	11.0
27							21.0	20.0	16.0	15.0	13.5	11.5
28							21.0	19.5	15.0	14.5	14.5	12.0
29							20.0	19.5	16.0	14.5	14.0	13.0
30							20.0	19.5	16.0	15.5	13.0	10.0
31							20.0	19.0	15.5	14.5	---	---
MONTH							21.0	18.5	21.5	14.5	19.0	8.5
YEAR	21.5	8.5										

13077700 GEORGE CREEK NEAR YOST, UT

LOCATION.--Lat 41°55'07", long 113°28'51", in SE¼SW¼SW¼ sec.20, T.14 N., R.14 W., Box Elder County, Hydrologic Unit 17040201, on right bank 1,000 ft (305 m) upstream from section corner and boundary of Sawtooth National Forest, 4.5 mi (7.2 km) southeast of Yost, 5 mi (8 km) south of Utah-Idaho State line, and 16 mi (26 km) southwest of Strevell, Idaho.

DRAINAGE AREA.--7.84 mi² (20.31 km²).

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,000 ft or 2,134 m (from topographic map).

REMARKS.--Records good.

AVERAGE DISCHARGE.--18 years, 7.34 ft³/s (0.21 m³/s), 5,320 acre-ft/yr (6.56 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 146 ft³/s (4.13 m³/s) June 10, 1963 (gage height, 1.96 ft or 0.597 m); minimum, 1.0 ft³/s (0.03 m³/s) July 14, 15, 16, 17, 18, 19, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47 ft³/s (1.33 m³/s) June 9 (gage height, 1.67 ft or 0.509 m); minimum daily, 1.2 ft³/s (0.03 m³/s) Dec. 21, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.0	1.6	1.4	2.0	2.3	2.0	3.4	25	7.4	3.1	2.3
2	2.9	2.0	1.5	1.5	2.0	2.5	2.3	3.1	31	8.6	2.7	2.3
3	2.7	2.0	1.4	1.5	2.0	2.5	2.3	3.1	28	7.0	2.5	2.3
4	2.3	2.0	1.4	1.5	2.0	2.5	2.5	2.9	26	6.1	3.1	2.3
5	2.0	2.0	1.5	1.5	2.0	2.5	2.9	2.7	29	5.8	3.1	2.3
6	2.0	2.0	1.6	1.5	2.0	2.5	2.9	2.7	32	5.7	2.9	2.3
7	2.0	2.0	1.6	1.5	2.0	2.5	3.1	3.1	31	5.8	2.7	2.3
8	2.0	2.0	1.6	1.5	2.0	2.5	3.6	3.9	29	5.5	2.5	2.0
9	2.0	2.0	1.6	1.4	2.0	2.5	3.9	3.6	37	5.3	2.7	2.3
10	2.0	2.0	1.5	1.5	2.0	2.3	3.4	3.6	31	5.0	2.7	2.0
11	2.0	1.8	1.5	1.5	2.0	2.3	3.1	3.1	23	5.0	2.5	2.0
12	2.0	1.6	1.5	1.5	2.0	2.3	3.4	3.1	18	5.0	2.7	1.8
13	2.0	1.6	1.5	1.5	2.0	2.3	3.6	3.1	13	5.0	2.7	2.0
14	2.0	1.8	1.5	1.5	2.0	2.3	3.4	3.4	11	4.6	2.9	2.0
15	2.0	1.8	1.5	1.5	2.0	2.3	3.1	3.6	9.3	4.2	3.6	3.1
16	2.0	1.8	1.5	1.5	2.0	2.3	3.4	4.6	8.7	3.9	3.1	3.1
17	2.0	1.8	1.5	1.4	2.0	2.5	4.2	4.2	8.2	3.6	3.1	3.9
18	2.0	1.8	1.5	1.5	2.0	2.3	3.6	3.9	7.7	3.4	4.2	3.6
19	2.0	1.8	1.4	1.6	2.0	2.5	3.4	3.6	7.2	3.4	3.9	3.4
20	2.0	1.8	1.4	1.6	2.0	2.5	3.4	3.9	7.2	4.2	3.6	3.9
21	2.0	1.8	1.2	1.6	2.3	2.5	3.6	3.9	6.7	3.4	3.4	3.9
22	2.0	1.8	1.4	1.6	2.3	2.7	4.6	5.9	5.7	3.4	3.1	4.2
23	2.0	1.8	1.4	1.6	2.3	3.1	5.5	8.7	5.6	3.6	3.6	3.9
24	2.0	1.8	1.5	1.8	2.3	2.7	5.0	13	6.6	5.5	3.6	3.6
25	2.0	1.8	1.6	1.8	2.3	2.7	4.6	13	7.6	3.9	4.2	3.4
26	2.0	1.8	1.6	1.8	2.3	2.5	4.2	9.9	7.5	3.9	4.6	3.1
27	2.0	1.8	1.6	1.8	2.3	2.5	3.9	8.7	7.0	3.6	3.9	2.9
28	2.0	1.8	1.4	1.8	2.3	2.3	3.6	7.2	7.6	3.6	3.4	2.7
29	2.0	1.8	1.4	1.8	---	2.3	3.6	6.3	7.9	3.6	2.9	2.5
30	2.0	1.8	1.4	1.8	---	2.3	3.4	7.2	6.8	3.6	2.7	2.3
31	2.0	---	1.2	1.8	---	2.3	---	13	---	3.4	2.3	---
TOTAL	63.5	55.6	45.8	49.1	58.4	76.1	105.5	165.4	481.3	146.0	98.0	83.7
MEAN	2.05	1.85	1.48	1.58	2.09	2.45	3.52	5.34	16.0	4.71	3.16	2.79
MAX	2.9	2.0	1.6	1.8	2.3	3.1	5.5	13	37	8.6	4.6	4.2
MIN	1.6	1.6	1.2	1.4	2.0	2.3	2.0	2.7	5.6	3.4	2.3	1.8
AC-FT	126	110	91	97	116	151	209	328	955	290	194	166

CAL YR 1976 TOTAL 2149.8 MEAN 5.87 MAX 37 MIN 1.1 AC-FT 4260
WTR YR 1977 TOTAL 1428.4 MEAN 3.91 MAX 37 MIN 1.2 AC-FT 2830

13078205 RAFT RIVER BELOW ONEMILE CREEK, NEAR MALTA, ID

LOCATION.--Lat 42°04'13", long 113°26'37", in NW¼SE¼SW¼ sec.32, T.15 S., R.26 E., Cassia County, Hydrologic Unit 17040210, Bureau of Land Management lands, on left bank 64 ft (19.5 m) downstream from county road crossing, 300 ft (91.4 m) downstream from Onemile Creek, 16 miles (26 km) southwest of Malta, and at mile 44.3 (71.3 km).

DRAINAGE AREA.--433 mi² (1,121 km²). Mean altitude, 6,300 ft (1,920 m).

PERIOD OF RECORD.--September 1946 to December 1953, May 1955 to June 1971, October 1975 to current year. Records since October 1975 equivalent to earlier records published as "at Peterson Ranch, near Bridge" (station 13078000) except for unusually heavy rainstorm runoff from Onemile Creek drainage.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft or 1,510 m (from topographic map). Prior to October 1975 at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records fair. Diversions above station for irrigation of about 16,000 acres or 6,500 hm² (1966 determination).

AVERAGE DISCHARGE.--24 years, 17.1 ft³/s (0.48 m³/s), 12,390 acre-ft/yr (15.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,060 ft³/s (58.3 m³/s) Jan. 17, 1971 (gage height, 5.51 ft or 1.679 m, site and datum then in use); minimum, 0.8 ft³/s (0.02 m³/s) Jan. 23, 1961 (gage height, 1.02 ft or 0.311 m), site and datum then in use), result of ice jam upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft³/s (7.02 m³/s) June 8 (gage height, 4.59 ft or 1.399 m); minimum, 3.8 ft³/s (0.11 m³/s) Aug. 19 (gage height, 2.64 ft or 0.805 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.6	3.6	3.3	40
2.7	5.7	3.6	72
2.8	8.5	4.0	128
2.9	12	4.6	250
3.1	24		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	10	15	15	15	19	10	14	19	9.6	6.8	8.2
2	12	10	15	15	15	16	10	14	17	9.6	6.0	7.9
3	14	10	16	15	14	17	10	15	17	9.6	6.5	7.9
4	14	10	17	15	15	20	10	14	18	9.6	6.5	8.9
5	13	9.6	17	15	14	21	10	14	18	10	8.9	8.5
6	12	9.6	16	13	15	18	13	15	18	10	15	7.1
7	12	9.3	16	10	15	20	15	16	19	11	12	6.8
8	12	9.6	18	11	15	19	22	19	26	11	7.4	6.5
9	12	9.6	18	11	16	14	25	16	25	11	6.5	6.0
10	11	9.6	16	12	16	12	23	17	21	11	8.9	6.5
11	11	9.6	17	14	16	12	23	16	17	11	7.7	7.4
12	12	10	16	14	16	12	22	15	19	12	6.3	7.4
13	11	13	16	14	17	13	20	14	19	9.3	6.0	6.8
14	11	15	20	15	17	13	19	15	16	8.9	6.3	6.5
15	10	20	18	15	17	14	17	15	15	8.9	5.7	6.8
16	9.3	18	16	11	18	18	16	17	18	8.9	5.7	7.4
17	8.8	18	15	17	16	17	18	17	16	9.6	5.3	8.2
18	8.8	18	15	17	14	15	16	16	14	10	5.3	8.2
19	8.6	17	15	17	17	16	18	15	13	9.3	5.7	8.2
20	8.6	16	16	17	15	15	15	15	14	13	6.3	8.2
21	9.0	16	15	17	18	14	17	15	15	8.9	28	7.7
22	9.2	17	16	17	18	13	15	15	13	5.3	12	8.5
23	9.2	16	15	17	17	12	18	15	12	5.5	8.0	10
24	9.4	17	15	17	16	12	18	16	13	7.9	7.6	11
25	9.4	19	15	15	15	11	18	19	12	8.2	7.6	8.9
26	9.8	16	16	14	15	11	15	22	11	7.7	9.4	8.2
27	10	12	16	14	15	11	15	34	11	7.4	10	8.2
28	10	12	17	17	16	10	14	36	11	7.9	10	7.6
29	10	13	17	17	---	10	14	29	10	9.3	9.3	7.6
30	10	14	17	14	---	10	14	27	10	7.1	8.5	7.3
31	10	---	17	14	---	10	---	20	---	6.8	8.5	---
TOTAL	327.1	403.9	504	466	450	445	490	562	477	285.3	263.7	234.4
MEAN	10.6	13.5	16.3	15.0	16.1	14.4	16.3	18.1	15.9	9.20	8.51	7.81
MAX	14	20	20	17	18	21	25	36	26	13	28	11
MIN	8.6	9.3	15	10	14	10	10	14	10	5.3	5.3	6.0
AC-FT	649	801	1000	924	893	883	972	1110	946	566	523	465

CAL YR 1976 TOTAL 9749.7 MEAN 26.6 MAX 103 MIN 7.1 AC-FT 19340
WTR YR 1977 TOTAL 4908.4 MEAN 13.4 MAX 36 MIN 5.3 AC-FT 9740

NOTE.--No gage-height record Jan. 4 to Feb. 16.

13080000 NORTH SIDE MINIDOKA CANAL NEAR MINIDOKA, ID

LOCATION.--Lat 42°40'15", long 113°29'00", in SE¼NW¼ sec.1, T.9 S., R.25 E., Minidoka County, Hydrologic Unit 17040209, on left bank 600 ft (180 m) downstream from headgates at Minidoka Dam and 6 mi (10 km) south of Minidoka.

PERIOD OF RECORD.--April 1908 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 4,180.33 ft (1,274.165 m) above mean sea level (Bureau of Reclamation bench mark). April to November 1910 at datum 0.08 ft (0.024 m) higher.

REMARKS.--Records excellent. Flow controlled by headgates. Canal diverts water from Lake Walcott at right end of Minidoka Dam for irrigation of 64,000 acres (25,900 hm^2) under North Side Minidoka project. Diversion began in June 1907.

COOPERATION.--Gage-height record furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--36 years (1942-77), 611 ft^3/s (17.30 m^3/s), 442,700 acre-ft/yr (546 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,920 ft^3/s (54.4 m^3/s) July 14-18, 1969, June 26, 27, July 14-23, 1971; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	624	.00	.00	.00	.00	.00	512	868	784	1780	973	744
2	604	.00	.00	.00	.00	.00	548	986	1090	1690	1030	750
3	508	.00	.00	.00	.00	.00	550	1010	1220	1530	1120	756
4	470	.00	.00	.00	.00	.00	552	1010	1380	1450	1180	756
5	438	.00	.00	.00	.00	.00	715	1010	1610	1360	1160	754
6	381	.00	.00	.00	.00	.00	863	901	1640	1300	1070	754
7	381	.00	.00	.00	.00	.00	972	740	1760	1300	989	705
8	381	.00	.00	.00	.00	.00	984	576	1750	1390	980	648
9	391	.00	.00	.00	.00	.00	1040	478	1640	1400	1020	638
10	422	.00	.00	.00	.00	.00	1070	463	1300	1400	1190	634
11	458	.00	.00	.00	.00	.00	1090	208	880	1400	1250	581
12	501	.00	.00	.00	.00	.00	1280	.00	702	1400	1240	542
13	513	.00	.00	.00	.00	.00	1310	.00	630	1390	1290	540
14	444	.00	.00	.00	.00	.00	1370	.00	616	1390	1320	548
15	186	.00	.00	.00	.00	.00	1360	.00	704	1400	1230	514
16	.00	.00	.00	.00	.00	.00	1360	451	710	1400	1180	488
17	.00	.00	.00	.00	.00	.00	1360	745	712	1390	1170	483
18	.00	.00	.00	.00	.00	.00	1340	828	921	1390	1140	485
19	.00	.00	.00	.00	.00	.00	1220	790	1100	1380	1110	441
20	.00	.00	.00	.00	.00	.00	1150	760	1120	1380	1080	427
21	.00	.00	.00	.00	.00	.00	1150	736	1050	1380	1050	420
22	.00	.00	.00	.00	.00	.00	1120	706	1120	1370	1050	341
23	.00	.00	.00	.00	.00	45	1200	594	1250	1340	1040	303
24	.00	.00	.00	.00	.00	97	1300	476	1430	1130	1040	298
25	.00	.00	.00	.00	.00	95	1320	168	1530	791	1040	299
26	.00	.00	.00	.00	.00	95	1310	.00	1610	746	941	312
27	.00	.00	.00	.00	.00	95	1320	.00	1680	805	809	362
28	.00	.00	.00	.00	.00	175	1020	.00	1690	833	750	391
29	.00	.00	.00	.00	---	315	769	.00	1740	875	732	412
30	.00	.00	.00	.00	---	354	870	61	1790	902	730	388
31	.00	---	.00	.00	---	418	---	310	---	902	746	---
TOTAL	6702.00	.00	.00	.00	.00	1689.00	32025	14875.00	37159	39594	32650	15714
MEAN	216	.000	.000	.000	.000	54.5	1068	480	1239	1277	1053	524
MAX	624	.00	.00	.00	.00	418	1370	1010	1790	1780	1320	756
MIN	.00	.00	.00	.00	.00	.00	512	.00	616	746	730	298
AC-FT	13290	.00	.00	.00	.00	3350	63520	29500	73700	78530	64760	31170

CAL YR 1976 TOTAL 199810.00 MEAN 546 MAX 1890 MIN .00 AC-FT 396300
WTR YR 1977 TOTAL 180408.00 MEAN 494 MAX 1790 MIN .00 AC-FT 357800

13080500 SOUTH SIDE MINIDOKA CANAL NEAR MINIDOKA, ID

LOCATION.--Lat 42°39'45", long 113°29'20", in NW¼NW¼ sec.12, T.9 S., R.25 E., Cassia County, Hydrologic Unit 17040209, on right bank 900 ft (270 m) downstream from headgates at Minidoka Dam and 6 mi (10 km) south of Minidoka.

PERIOD OF RECORD.--April 1908 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1347: 1910.

GAGE.--Water-stage recorder. Datum of gage is 4,184 ft (1,275 m) above mean sea level (Bureau of Reclamation bench mark). Prior to 1910 at site 600 ft (180 m) upstream at same datum.

REMARKS.--Records good. Flow controlled by headgates. Canal diverts water from Lake Walcott at left end of Minidoka Dam for irrigation of 56,000 acres (23,000 hm²) under South Side Minidoka project. Diversion began in April 1908.

COOPERATION.--Gage-height record furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--36 years (1942-77), 485 ft³/s (13.74 m³/s), 351,400 acre-ft/yr (433 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,490 ft³/s (42.2 m³/s) July 12-16, 1967, July 11-20, 1969; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	563	.00	.00	.00	.00	.00	221	753	515	1320	1020	631
2	506	.00	.00	.00	.00	.00	218	750	661	1310	1070	649
3	415	.00	.00	.00	.00	.00	219	746	857	1310	1110	680
4	355	.00	.00	.00	.00	.00	221	743	1070	1320	1080	695
5	329	.00	.00	.00	.00	.00	232	711	1200	1280	1040	724
6	329	.00	.00	.00	.00	.00	296	394	1330	1250	1010	737
7	329	.00	.00	.00	.00	.00	370	.00	1350	1240	954	689
8	329	.00	.00	.00	.00	.00	402	.00	1370	1250	858	619
9	327	.00	.00	.00	.00	.00	404	.00	1340	1270	836	580
10	327	.00	.00	.00	.00	.00	441	.00	1180	1280	900	525
11	329	.00	.00	.00	.00	.00	673	.00	978	1280	986	585
12	325	.00	.00	.00	.00	.00	891	.00	780	1300	1030	580
13	324	.00	.00	.00	.00	.00	1110	172	605	1340	1050	577
14	325	.00	.00	.00	.00	.00	1140	433	470	1340	1090	577
15	190	.00	.00	.00	.00	.00	1140	676	458	1340	1110	580
16	.00	.00	.00	.00	.00	.00	1140	534	437	1350	1070	574
17	.00	.00	.00	.00	.00	.00	1120	456	483	1350	1050	585
18	.00	.00	.00	.00	.00	.00	1040	544	523	1350	1030	605
19	.00	.00	.00	.00	.00	.00	954	506	547	1350	968	588
20	.00	.00	.00	.00	.00	.00	862	421	692	1350	910	478
21	.00	.00	.00	.00	.00	40	766	377	826	1340	878	442
22	.00	.00	.00	.00	.00	82	727	402	1010	1300	881	392
23	.00	.00	.00	.00	.00	105	759	436	1220	1240	897	295
24	.00	.00	.00	.00	.00	127	785	439	1320	1180	907	249
25	.00	.00	.00	.00	.00	147	801	293	1340	993	910	252
26	.00	.00	.00	.00	.00	148	788	.00	1360	881	814	256
27	.00	.00	.00	.00	.00	151	769	.00	1350	814	778	269
28	.00	.00	.00	.00	.00	197	680	.00	1320	804	740	283
29	.00	.00	.00	.00	---	226	763	.00	1320	900	692	318
30	.00	.00	.00	.00	---	222	769	109	1320	920	637	319
31	.00	---	.00	.00	---	222	---	317	---	954	646	---
TOTAL	5302.00	.00	.00	.00	.00	1667.00	20701	10212.00	29232	37506	28952	15333
MEAN	171	.000	.000	.000	.000	53.8	690	329	974	1210	934	511
MAX	563	.00	.00	.00	.00	226	1140	753	1370	1350	1110	737
MIN	.00	.00	.00	.00	.00	.00	218	.00	437	804	637	249
AC-FT	10520	.00	.00	.00	.00	3310	41060	20260	57980	74390	57430	30410

CAL YR 1976 TOTAL 170635.00 MEAN 466 MAX 1390 MIN .00 AC-FT 338500
WTR YR 1977 TOTAL 148905.00 MEAN 408 MAX 1370 MIN .00 AC-FT 295400

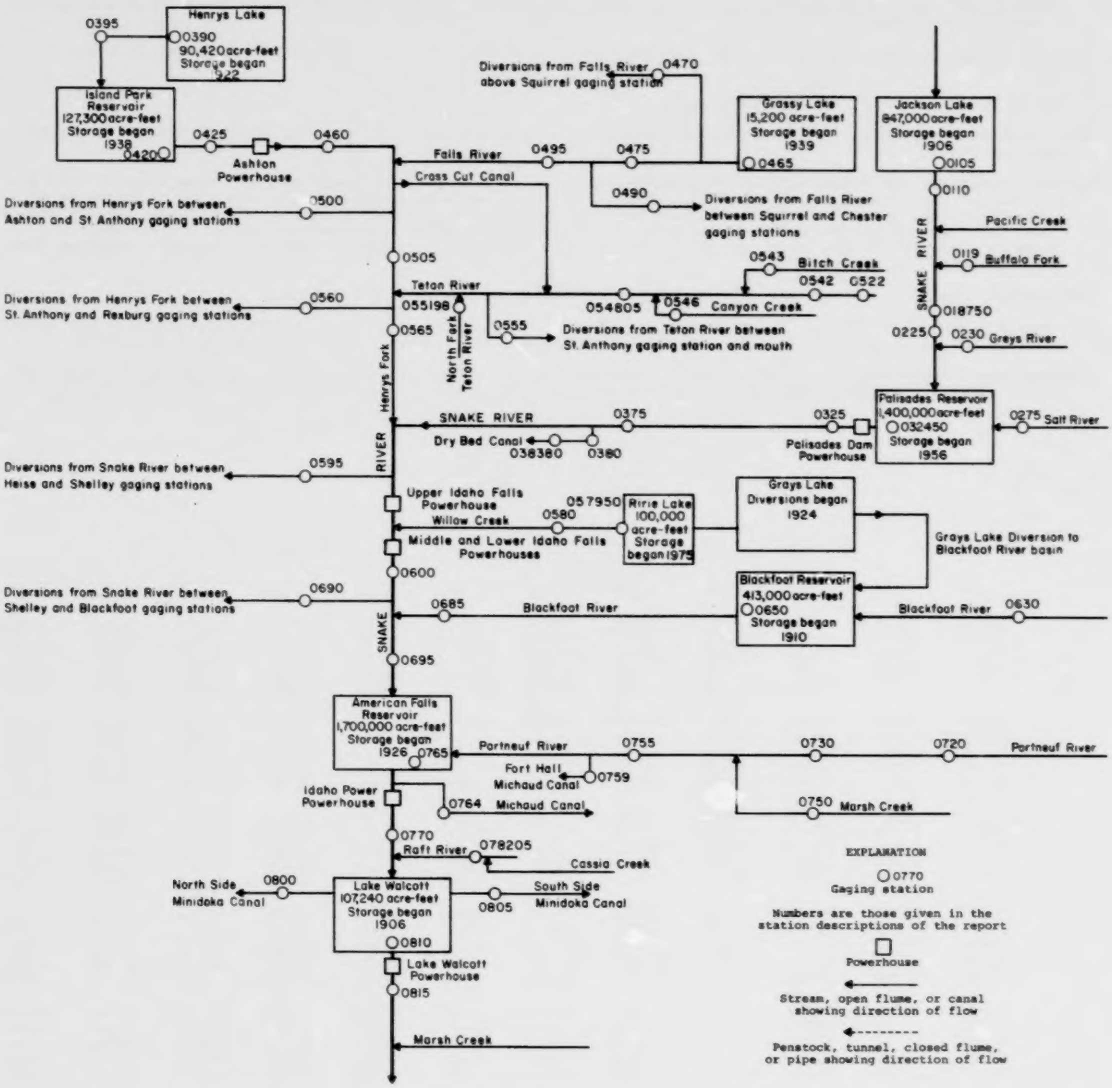
Henrys Lake
0390
90,420 acre-feet
Storage began
1922
0395
Island Park
Reservoir
127,300 acre-feet
Storage began
1938
0420
0425
Ashton
Powerhouse
0460
Diversions from Falls River
above Squirrel gaging station
0470
Grassy Lake
15,200 acre-feet
Storage began
1939
0465
Jackson Lake
847,000 acre-feet
Storage began
1906
0105
0110
Falls River
0495
0475
Cross Cut Canal
0490
Diversions from Falls River
between Squirrel and Chester
gaging stations
Diversions from Henrys Fork between
Ashton and St. Anthony gaging stations
0500
0505
Pacific Creek
0119
Buffalo Fork
0543
Bitch Creek
0542
0522
Teton River
Diversions from Henrys Fork between
St. Anthony and Rexburg gaging stations
0560
055198
054805
0546
Canyon Creek
018750
0225
0230
Greys River
0565
North Fork
Teton River
0555
Diversions from Teton River between
St. Anthony gaging station and mouth
SNAKE RIVER
Henrys Fork
SNAKE RIVER
0375
0325
Palisades Reservoir
1,400,000 acre-feet
032450
Storage began
1956
0275
Salt River
Dry Bed Canal
038380
0380
Palisades Dam
Powerhouse
Diversions from Snake River between
Heise and Shelley gaging stations
0595
RIVER
Upper Idaho Falls
Powerhouse
057950
Ririe Lake
100,000
acre-feet
Storage
began 1975
Grays Lake
Diversions began
1924
0580
Willow Creek
Middle and Lower Idaho Falls
Powerhouses
Grays Lake Diversion to
Blackfoot River basin
0600
Diversions from Snake River between
Shelley and Blackfoot gaging stations
0690
Blackfoot Reservoir
413,000 acre-feet
0650
Storage began
1910
0685
Blackfoot River
Blackfoot River
0630
SNAKE
0695
American Falls
Reservoir
1,700,000 acre-feet
Storage began
1926
0765
Portneuf River
0755
0730
0720
Portneuf River
Fort Hall
Michaud Canal
0759
Idaho Power
Powerhouse
0764
Michaud Canal
0750
Marsh Creek
0770
Raft River
078205
Cassia Creek
North Side
Minidoka Canal
0800
Lake Walcott
107,240 acre-feet
Storage began
1906
0810
0805
South Side
Minidoka Canal
Lake Walcott
Powerhouse
0815
Marsh Creek
EXPLANATION
0770
Gaging station
Numbers are those given in the
station descriptions of the report
Powerhouse
Stream, open flume, or canal
showing direction of flow
Penstock, tunnel, closed flume,
or pipe showing direction of flow

FIGURE 13.--Gaging stations in upper Snake River basin between Jackson Lake and Minidoka.

13081000 LAKE WALCOTT NEAR MINIDOKA, ID

LOCATION.--Lat 42°40'15", long 113°29'00", near center of sec.1, T.9 S., R.25 E., Minidoka County, Hydrologic Unit 17040209, on south wall in powerhouse at Minidoka Dam on Snake River, 6 mi (10 km) southeast of Minidoka, and at mile 675.0 (1,086.1 km).

DRAINAGE AREA.--15,700 mi² (40,700 km²), approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--April 1909 to current year.

GAGE.--Nonrecording gage. Datum of gage is datum of Bureau of Reclamation, which is 49.52 ft (15.094 m) below mean sea level.

REMARKS.--Reservoir is formed by rock-fill dam with concrete core; storage began in 1906. Capacity, 107,240 acre-ft (132 hm³) between elevations 4,236.00 ft or 1,291.133 m (sill of powerhouse penstock) and 4,246.00 ft or 1,294.181 m (top of flashboards). Dead storage below elevation 4,236.00 ft (1,291.133 m) about 115,000 acre-ft (142 hm³). Water used for power development and irrigation on Minidoka project of Bureau of Reclamation. Contents given herein are above elevation 4,236.00 ft (1,291.133 m). Figures of daily contents computed from daily readings.

COOPERATION.--Daily elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 110,700 acre-ft (136 hm³) Aug. 8, 1922 (elevation, 4,246.28 ft or 1,294.266 m); minimum, -101,410 acre-ft (125 hm³) Nov. 17, 1941 (elevation, 4,215.19 ft or 1,284.790 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 101,900 acre-ft (126 hm³) Apr. 6 (elevation, 4,245.56 ft or 1,294.047 m); minimum observed, 13,300 acre-ft (16.4 hm³) Sept. 20 (elevation, 4,237.38 ft or 1,291.554 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,237.0	9,540
4,240.0	40,000
4,244.0	83,500
4,246.0	107,200

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96800	79900	65700	37300	47600	62900	97600	92400	94500	93400	95700	22700
2	96400	79400	61700	37300	48400	63000	98300	92300	91000	93300	95200	24700
3	95300	78600	59000	37500	48400	63300	99200	92400	91500	93400	93800	26300
4	97400	78100	57200	37100	49700	62900	100400	91000	91000	94200	92000	28200
5	97500	77700	55200	37500	49500	63500	101700	92500	92000	94000	90100	29000
6	97400	77100	55400	37500	49300	64400	101900	93300	93000	94000	87500	29400
7	97700	76900	56200	37200	48800	64900	101400	93900	92600	94200	85500	28600
8	97600	75800	55700	37200	49500	66200	99300	93400	91500	94500	83300	25100
9	97400	75500	53400	37400	49000	68200	96400	92900	92000	95300	81300	24900
10	97100	74600	50500	37700	48000	70700	93600	91500	93000	95400	79000	22900
11	97100	73800	48600	39400	47100	73200	95000	91700	93700	95900	75900	22100
12	97100	73200	47200	40500	46500	75200	94700	91200	95000	95900	72800	20200
13	97100	71200	46000	40800	48200	75900	95200	90600	96000	94400	69200	18600
14	96900	71200	44500	42000	48800	77400	92900	91200	96400	94800	64700	16800
15	97200	71700	43100	43300	49500	78800	93800	91700	97000	94000	60500	15900
16	97500	72200	42400	44000	50600	79300	93800	92400	97200	94700	56700	15700
17	97500	72300	41500	44300	51700	77200	92400	90800	97200	93900	53400	13900
18	98800	72100	40900	44800	51800	78600	93800	91900	95900	93300	49500	14000
19	95200	71800	39400	44900	52600	80200	93600	92200	95800	91900	46300	14100
20	93700	72700	39600	45100	53100	82000	94500	93200	95000	93100	43300	13300
21	92300	73800	39100	45900	53600	84700	94700	93300	95000	92700	40600	14500
22	90600	74100	38100	46500	53500	87600	95400	93800	94400	92200	37500	15100
23	89100	74700	37900	47100	54600	91500	95200	94000	94100	91500	34200	16300
24	87700	73600	37400	47500	60100	93600	94400	94700	93800	91500	30800	17500
25	85200	70100	36800	47800	63000	94600	94100	95700	94000	92200	26800	18600
26	84000	69900	36600	48000	63500	96800	91900	96400	94400	94000	24000	21600
27	83500	68500	37200	48200	63500	96800	93200	95900	94000	95100	21600	25400
28	83000	68300	37200	47800	63300	95300	92900	96400	93800	96300	19600	28900
29	81900	68300	37300	47400	---	97700	93800	95900	93800	95700	19000	22100
30	81100	68100	37300	47400	---	99400	93200	95600	93800	96000	18900	24100
31	80800	---	37300	47400	---	97400	---	94700	---	96200	20400	---
MAX	98800	79900	65700	48200	63500	99400	101900	96400	97200	96300	95700	29400
MIN	80800	68100	36600	37100	46900	62900	91900	90800	91000	91500	18900	13300
(†)	4243.76	4242.62	4239.74	4240.70	4242.18	4245.18	4244.83	4244.96	4244.88	4245.08	4238.09	4238.46
(‡)	-15700	-12700	-30800	+10100	+15900	+34100	-4200	+1500	-900	+2400	-75800	+3700

CAL YR 1976............ ‡ -22000
WTR YR 1977............ ‡ -72400

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13081500 SNAKE RIVER NEAR MINIDOKA, ID

LOCATION.--Lat 42°40'23", long 113°29'58", in SW¼NE¼ sec.2, T.9 S., R.25 E., Minidoka County, Hydrologic Unit 17040209, on right bank 1 mi (2 km) downstream from Minidoka Dam, 6 mi (10 km) south of Minidoka, and at mile 673.5 (1,083.7 km).

DRAINAGE AREA.--15,700 mi² (40,700 km²), approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--August 1895 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "below Minidoka dam, at Howell's Ferry" 1911. Records for August 1895 to Apr. 20, 1910, at site 6 mi (10 km) downstream "at Montgomery Ferry."

REVISED RECORDS.--WSP 1347: 1911.

GAGE.--Water-stage recorder. Datum of gage is 4,132.2 ft (1,259.49 m) above mean sea level (river-profile survey). Prior to Apr. 21, 1910, nonrecording gage at site 6 mi (10 km) downstream at different datum. Apr. 21, 1910, to Aug. 28, 1911, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow regulated by American Falls Reservoir (see sta 13076500), Lake Walcott (see sta 13081000) and other reservoirs, having a combined usable capacity of about 4,700,000 acre-ft (5,800 hm³). Diversions above station for irrigation of about 128,000 acres (51,800 hm²) below and about 1,200,000 acres (486,000 hm²) above station of which about 304,000 acres (123,000 hm²) are by withdrawals from ground water (1966 determination). Considerable water leaks into the Snake Plain aquifer above station.

AVERAGE DISCHARGE.--51 years (1927-77), 6,211 ft³/s (175.9 m³/s), 4,500,000 acre-ft/yr (5,500 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,500 ft³/s (1,350 m³/s) May 29, 30, 1897 (gage height, 12.6 ft or 3.84 m, former site and datum); minimum, 37 ft³/s (1.05 m³/s) Jan. 28, Feb. 4, 11, 18, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,400 ft³/s (295 m³/s) Dec. 1 (gage height, 7.77 ft or 2.368 m); minimum, 1,330 ft³/s (37.7 m³/s) Sept. 27, 28, 29 (gage height, 3.84 ft or 1.170 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5490	4140	9360	4080	4170	3910	3230	7080	6240	8210	7660	3190
2	5540	4140	9400	4050	4120	3890	3100	7110	6740	8230	7610	3110
3	5780	4130	8730	4310	4060	3800	3120	7200	7250	8140	7590	3020
4	5850	4120	8530	4230	4080	3850	2780	7420	7820	8200	7630	2960
5	5860	4140	8490	4080	4080	3950	3140	7230	7820	8670	7690	2960
6	5940	4130	7670	4090	4080	4060	3580	7080	7850	8830	7560	3220
7	6010	4140	7360	4030	3970	4170	3620	6820	7850	8700	7700	3730
8	6070	4130	7060	4110	3720	4340	3760	6460	7760	8380	7730	3760
9	6020	4240	6300	4090	3740	4250	4190	6320	7420	8160	7690	3610
10	5990	4360	5620	3820	3720	4170	4580	6300	6970	8340	7660	3600
11	6040	4360	5120	3650	3720	4080	4740	6460	6650	8410	7650	3560
12	6000	4690	4810	3790	3720	4020	5240	6520	6710	8420	7760	3310
13	5990	4790	4620	3740	3760	4210	5660	6700	6630	8570	7850	3090
14	5910	4410	4380	3780	3720	4080	6140	7090	6560	8340	7840	2910
15	5580	4430	4240	3950	3700	3950	6070	7030	6430	8270	7680	2730
16	5140	4510	4120	4060	2700	4140	5820	7060	6310	8300	7370	2740
17	5350	4830	4060	4080	2650	4190	6050	7130	6450	8330	7230	2800
18	5360	4740	4040	4080	2630	3970	5970	6920	6410	8340	7090	2730
19	4520	4580	4030	4100	2610	2950	6540	6870	6420	8300	7010	2730
20	4170	4230	4030	4140	2610	2860	6570	6770	6510	8030	7040	2780
21	4170	4400	4040	4300	2660	2880	6430	6710	6710	7930	7100	2770
22	4180	4440	4020	4430	2810	3100	6350	6760	6940	7900	7040	2760
23	4200	5010	4060	4550	2660	3640	6350	6720	7180	7820	7240	2740
24	4190	6100	4080	4600	3140	4100	6320	6550	7310	7620	7340	2780
25	4430	5900	4040	4680	3420	4250	6460	6470	7650	7450	7140	2230
26	4200	6180	4060	4700	3970	4280	6740	6310	7910	7540	6830	1790
27	4150	6130	4200	4700	3830	4480	6770	6290	8100	7630	6410	1540
28	4150	6110	4050	4720	3830	3890	6910	6150	8300	7660	5940	1330
29	4150	6690	4040	4750	---	3190	7050	6010	8540	7730	5030	1350
30	4150	8200	4050	4720	---	3700	7020	6020	8320	7710	4720	1390
31	4140	---	4060	4510	---	3390	---	6170	---	7670	3420	---
TOTAL	158720	146400	166670	130920	97880	119740	160300	207730	215760	251830	219250	83220
MEAN	5120	4880	5376	4223	3496	3863	5343	6701	7192	8124	7073	2774
MAX	6070	8200	9400	4750	4170	4480	7050	7420	8540	8830	7850	3760
MIN	4140	4120	4020	3650	2610	2860	2780	6010	6240	7450	3420	1330
AC-FT	314800	290400	330600	259700	194100	237500	318000	412000	428000	499500	434900	165100

CAL YR 1976 TOTAL 3768690 MEAN 10300 MAX 24500 MIN 2700 AC-FT 7475000
WTR YR 1977 TOTAL 1958420 MEAN 5366 MAX 9400 MIN 1330 AC-FT 3885000

13081500 SNAKE RIVER NEAR MINIDOKA, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1977.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.
INSTRUMENTATION.--Temperature recorder since May 20, 1977.
REMARKS.--No temperature record July 26 to Aug. 7 due to equipment malfuction.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	15.5	14.0	20.0	19.0	---	---	19.0	16.5
2			---	---	14.5	13.5	19.5	19.0	---	---	19.0	16.0
3			---	---	15.5	14.0	20.0	19.5	---	---	18.0	16.0
4			---	---	15.0	14.5	20.5	19.5	---	---	19.0	16.0
5			---	---	16.5	15.0	20.0	19.5	---	---	18.5	16.5
6			---	---	19.0	16.5	19.5	19.0	---	---	18.5	16.0
7			---	---	19.0	17.0	20.0	19.0	---	---	19.0	16.5
8			---	---	17.0	16.5	20.0	19.5	21.0	20.5	18.0	16.0
9			---	---	18.0	17.0	20.0	19.5	21.5	20.5	18.0	16.5
10			---	---	18.0	17.0	20.0	19.5	21.0	20.0	18.5	16.0
11			---	---	18.5	17.5	20.0	19.5	21.5	20.0	18.5	16.5
12			---	---	19.0	18.0	20.5	19.5	21.5	20.5	18.5	16.5
13			---	---	19.5	18.0	20.0	19.5	21.0	20.5	18.5	16.0
14			---	---	19.0	18.0	20.5	19.5	21.0	20.0	17.5	16.0
15			---	---	18.5	18.0	20.5	19.5	21.5	20.5	18.5	15.5
16			---	---	19.0	18.0	20.5	20.0	22.0	20.5	17.0	15.5
17			---	---	19.5	18.0	20.0	20.0	21.5	21.0	16.5	15.5
18			---	---	20.0	19.0	21.0	20.0	21.5	20.0	17.0	14.5
19			---	---	20.5	19.0	21.5	20.5	22.0	21.0	16.5	14.0
20			11.0	10.5	19.5	19.0	22.0	21.0	22.0	21.5	15.0	14.0
21			11.5	10.5	19.5	19.0	22.0	21.5	22.0	21.0	15.5	14.0
22			11.5	10.5	19.5	19.0	21.5	21.0	22.5	21.0	14.0	13.0
23			12.0	11.5	20.5	19.0	21.5	21.5	22.0	21.0	15.5	12.5
24			11.5	11.5	20.0	19.0	21.5	21.0	22.0	21.0	13.5	12.5
25			12.5	11.5	20.0	19.5	21.5	21.0	21.0	20.5	14.5	12.0
26			12.5	11.5	20.5	20.0	---	---	20.5	19.5	14.0	12.0
27			12.5	12.0	21.0	20.5	---	---	19.5	18.5	14.5	11.0
28			12.5	12.0	21.0	20.5	---	---	19.0	18.5	15.0	11.5
29			13.0	12.0	20.5	20.0	---	---	19.0	18.0	13.5	12.0
30			14.0	12.0	20.0	19.5	---	---	19.0	17.5	13.5	11.0
31			14.5	13.0	---	---	---	---	19.0	17.0	---	---
MONTH			14.5	10.5	21.0	13.5	22.0	19.0	22.5	17.0	19.0	11.0
YEAR	22.5	10.5										

SNAKE RIVER MAIN STEM

13082030 SNAKE RIVER NEAR BURLEY, ID

LOCATION.--Lat 42°37'12", long 113°35'19", in SW¼SW¼ sec.19, T.9 S., R.25 E., Minidoka County, Hydrologic Unit 17040209, at old Highway 30 bridge, 3.8 mi (6.1 km) east of Rupert, and at mile 668.6 (1,076 km).

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 04...	1345	5920	410	8.4	12.0	15.0	10	9.9	113	--	44	--
NOV 02...	1230	4280	429	8.2	9.5	10.0	6	13.4	138	16	35	180
DEC 09...	1400	6250	*475	8.3	1.0	2.0	9	12.6	106	8	82	--
JAN 13...	1230	3740	502	8.0	-2.0	.0	6	11.9	95	0	<1	--
FEB 23...	1300	2070	502	8.7	4.0	2.0	3	13.0	110	4	82	190
MAR 25...	1200	4230	446	8.9	2.0	4.0	7	13.3	118	11	82	--
APR 14...	1330	6250	464	8.6	12.0	8.5	8	10.3	102	13	36	--
MAY 24...	1900	6490	432	8.7	15.0	11.5	3	10.0	97	15	--	--
JUN 29...	1830	8950	450	8.5	28.0	20.0	10	9.4	119	13	58	--
JUL 25...	1800	7900	455	8.2	23.5	22.0	2	9.3	122	11	87	--
AUG 31...	0820	3480	439	7.9	13.0	15.0	20	14.4	163	10	58	--
SEP 22...	1130	2780	499	8.1	11.5	13.0	15	10.2	112	17	79	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 04...	--	--	--	--	--	--	--	180	2	152	--	--
NOV 02...	41	44	17	21	20	.7	3.7	170	0	139	42	23
DEC 09...	--	--	--	--	--	--	--	190	0	156	--	--
JAN 13...	--	--	--	--	--	--	--	220	0	180	--	--
FEB 23...	0	51	16	21	19	.7	3.5	*210	14	196	45	22
MAR 25...	--	--	--	--	--	--	--	190	22	192	--	--
APR 14...	--	--	--	--	--	--	--	190	10	172	--	--
MAY 24...	--	--	--	--	--	--	--	180	12	168	--	--
JUN 29...	--	--	--	--	--	--	--	180	5	156	--	--
JUL 25...	--	--	--	--	--	--	--	180	0	148	--	--
AUG 31...	--	--	--	--	--	--	--	210	0	172	--	--
SEP 22...	--	--	--	--	--	--	--	230	0	189	--	--

* Not a field determintaion.
B Results based on count outside of ideal colony count range.

13082030 SNAKE RIVER NEAR BURLEY, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT												
04...	14	264	.36	4220	24	.04	.00	.18	.18	.22	.97	.06
NOV												
02...	20	265	.36	3060	24	.12	.17	.16	.33	.45	2.0	.08
DEC												
09...	17	280	.38	4730	19	.19	.02	.31	.33	.52	2.3	.03
JAN												
13...	18	284	.39	2870	2	.30	.01	.21	.22	.52	2.3	.02
FEB												
23...	20	299	.41	1670	0	.42	.01	.14	.15	.57	2.5	.03
MAR												
25...	17	283	.38	3230	11	.27	.07	.32	.39	.66	2.9	.05
APR												
14...	18	285	.39	4810	8	.19	.03	.52	.55	.74	3.3	.05
MAY												
24...	11	257	.35	4500	3	1.7	.02	.45	.47	2.2	9.6	.02
JUN												
29...	9.9	245	.33	5920	13	.09	.13	.21	.34	.43	1.9	.04
JUL												
25...	16	261	.36	5570	0	.30	.01	.15	.16	.46	2.0	.09
AUG												
31...	23	274	.37	2570	16	.53	.07	.41	.48	1.0	4.5	.14
SEP												
22...	25	314	.43	2360	20	.78	.07	.21	.28	1.1	4.7	.06

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT											
04...	4	<10	0	10	530	<100	.0	1	20	4.5	0
NOV											
02...	4	<10	0	10	140	<100	.0	1	420	2.9	0
DEC											
09...	3	<10	0	<10	160	<100	.3	0	30	2.1	0
JAN											
13...	2	<10	0	30	170	<100	.1	0	30	4.4	0
FEB											
23...	4	<10	0	20	100	<100	.1	1	20	1.7	0
MAR											
25...	2	<10	0	<10	170	<100	.3	1	10	1.7	0
APR											
14...	2	<10	0	30	230	<100	.0	0	50	3.0	0
MAY											
24...	2	<10	0	50	60	<100	.1	0	60	1.9	0
JUN											
29...	3	<10	0	60	230	<100	.1	1	70	2.4	0
JUL											
25...	5	<10	0	60	530	<100	.2	0	80	1.6	0
AUG											
31...	4	<10	10	10	390	<100	.2	0	20	2.1	0
SEP											
22...	3	<10	10	<10	420	<100	.1	0	20	1.5	0

13082500 GOOSE CREEK ABOVE TRAPPER CREEK, NEAR OAKLEY, ID

LOCATION.--Lat 42°07'30", long 113°56'20", in sec.13, T.15 S., R.21 E., Cassia County, Hydrologic Unit 17040211, on right bank 0.2 mi (0.3 km) upstream from maximum flow line of Oakley Reservoir, 5 mi (8 km) upstream from Trapper Creek, 5 mi (8 km) south of Oakley Dam, 9 mi (14.5 km) southwest of Oakley, and at mile 35.1 (56.5 km).

DRAINAGE AREA.--633 mi² (1,640 km²). Mean altitude, 6,030 ft (1,837.9 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1911 to September 1916, March 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,770 ft or 1,453.8 m (by barometer). Prior to Aug. 29, 1912, at site 200 ft (60.9 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Decreed water rights are reported to apply to about 2,700 acres (1,090 hm²) above station. Diversions for irrigation are made as flow permits to a major part of this acreage. Flow of artesian well, completed in 1935, enters below station. Pumps on four wells above and one below gage may occasionally discharge into the channel. Practically entire flow passing station is stored in Oakley Reservoir (see sta 13083500).

AVERAGE DISCHARGE.--63 years, 46.5 ft³/s (1.32 m³/s), 33,690 acre-ft/yr (41.54 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,240 ft³/s (91.8 m³/s) Feb. 11, 1962 (gage height, 9.3 ft or 2.83 m), from rating curve extended above 200 ft³/s (5.66 m³/s) on basis of slope-area measurement of peak flow; no flow July 22 to Aug. 10, Aug. 22-30, 1934, Aug. 15 to Oct. 3, 1935, July 22 to Sept. 25, 1940, Sept. 14, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 106 ft³/s (3.00 m³/s) Apr. 10 (gage height, 2.55 ft or 0.777 m); minimum daily, 5.0 ft³/s (0.14 m³/s) July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	31	28	27	29	35	44	12	51	6.6	13	12
2	24	31	30	25	29	35	44	13	44	6.4	12	12
3	30	31	32	30	27	32	43	13	38	10	12	11
4	32	31	33	25	28	32	43	15	34	11	12	10
5	33	31	33	27	27	39	44	14	33	9.7	12	9.5
6	29	31	31	24	27	44	52	19	31	8.0	12	8.8
7	31	32	26	14	29	49	68	27	27	7.8	11	8.6
8	29	31	29	14	30	48	80	33	19	8.1	11	8.6
9	28	31	36	20	32	51	86	39	20	8.2	10	8.0
10	27	31	33	21	31	44	93	35	33	7.0	8.6	8.6
11	27	30	24	25	32	42	84	33	37	6.5	8.0	9.5
12	27	33	27	27	32	42	80	31	49	6.5	7.6	9.5
13	28	31	28	25	33	46	75	30	39	5.4	7.3	9.5
14	27	32	30	24	34	44	73	28	29	5.5	6.5	9.5
15	30	40	27	28	34	39	63	25	24	5.0	6.3	11
16	28	41	25	24	35	39	57	31	25	5.3	7.0	12
17	28	39	26	30	36	41	52	43	20	5.4	6.3	15
18	27	39	24	31	35	39	37	42	19	5.3	7.6	15
19	27	37	21	32	34	39	26	38	20	5.1	9.8	16
20	27	34	21	31	34	38	27	35	19	7.9	12	16
21	28	34	20	32	35	39	30	35	23	6.8	10	17
22	28	36	19	32	36	39	26	35	23	7.8	12	17
23	29	34	25	33	34	41	17	42	20	8.4	10	18
24	29	34	29	31	33	45	11	57	19	13	9.2	17
25	30	33	29	28	34	47	12	82	17	15	9.2	17
26	30	30	32	24	34	45	12	94	14	15	12	16
27	30	20	33	25	34	44	11	90	13	14	13	15
28	31	17	29	25	34	43	13	82	11	17	13	15
29	31	17	27	28	---	43	12	75	9.7	16	13	15
30	31	24	26	27	---	44	12	67	8.7	16	13	14
31	31	---	27	27	---	44	---	58	---	15	13	---
TOTAL	889	946	863	847	902	1292	1327	1273	774.4	284.7	319.4	381.1
MEAN	28.7	31.5	27.8	27.3	32.2	41.7	44.2	41.1	25.8	9.18	10.3	12.7
MAX	33	41	36	33	36	51	93	94	51	17	13	18
MIN	22	17	19	14	27	32	11	12	8.7	5.0	6.3	8.0
AC-FT	1760	1880	1710	1680	1790	2560	2630	2520	1540	565	634	756

CAL YR 1976 TOTAL 23349.0 MEAN 63.8 MAX 395 MIN 11 AC-FT 46310
WTR YR 1977 TOTAL 10098.6 MEAN 27.7 MAX 94 MIN 5.0 AC-FT 20030

NOTE.--No gage-height record Dec. 31 to Mar. 2.

13082500 GOOSE CREEK ABOVE TRAPPER CREEK, NEAR OAKLEY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 06...	1100	31	437	8.7	--	2.0	--	170	12
DEC 15...	0930	22	360	--	-15.0	.0	0	--	--
JAN 26...	1030	28	332	--	-14.5	.0	0	--	--
MAR 02...	0940	46	337	--	-4.0	.0	2	--	--
APR 13...	1145	77	211	--	9.5	8.5	0	--	--
MAY 18...	1100	42	514	--	2.5	5.5	68	--	--
JUN 16...	1100	26	517	--	19.0	15.5	0	--	--
JUL 25...	1330	16	459	--	30.0	23.0	0	--	--
SEP 15...	1330	12	429	8.3	22.5	14.5	1	170	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 06...	49	11	18	18	.6	6.3	190	0	156
DEC 15...	--	--	--	--	--	--	--	--	--
JAN 26...	--	--	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--	--	--
APR 13...	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	--	--	--
JUL 25...	--	--	--	--	--	--	--	--	--
SEP 15...	51	11	19	19	.6	7.4	210	0	170

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 06...	22	25	.3	31	258	.35	21.6	.46	.21
DEC 15...	--	--	--	--	--	--	--	--	--
JAN 26...	--	--	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--	--	--
APR 13...	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	--	--	--
JUL 25...	--	--	--	--	--	--	--	--	--
SEP 15...	21	17	.3	34	264	.36	8.55	.02	.08

13083000 TRAPPER CREEK NEAR OAKLEY, ID

LOCATION.--Lat 42°10'10", long 113°58'20", in sec.34, T.14 S., R.21 E., Cassia County, Hydrologic Unit 17040211, on left bank 4 mi (6.4 km) upstream from Oakley Dam and 7 mi (11.3 km) southwest of Oakley.

DRAINAGE AREA.--53.7 mi² (139 km²). Mean altitude, 6,360 ft (1,938 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1911 to September 1916, March 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1063: 1941, 1943. WSP 1567: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,820 ft or 1,469 m (by barometer). Prior to Sept. 1, 1912, water-stage recorder at approximately present site at different datum, Apr. 8, 1913, to Sept. 30, 1916, and Mar. 28, 1919, to Aug. 15, 1931, at site 1 mi (1.6 km) upstream at different datum. Sept. 1, 1912, to Apr. 7, 1913, nonrecording gage at site 0.8 mi (1.3 km) downstream at different datum.

REMARKS.--Records good. A few small diversions above station. Flow of artesian well, completed in 1936, enters above. Practically entire flow passing station is stored in Oakley Reservoir (see sta 13083500).

AVERAGE DISCHARGE.--63 years, 14.9 ft³/s (0.422 m³/s) 10,800 acre-ft/yr (13.3 hm³/hr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 270 ft³/s (7.65 m³/s) Aug. 17, 1941 (gage height, 6.99 ft or 2.13 m) during cloudburst, from rating curve extended above 100 ft³/s (2.83 m³/s) on basis of velocity-area studies and peak flow over weir (a higher flow may have occurred during cloudburst Aug. 15, 1931); minimum discharge, 1.3 ft³/s (0.037 m³/s) Jan. 1, 1970 (gage height, 4.53 ft or 1.38 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s (1.87 m³/s) June 8 (gage height, 5.44 ft or 1.658 m, from peak-stage indicator); minimum, 3.5 ft³/s (0.099 m³/s) Jan. 6.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.8	8.3	5.3	48
4.9	13.5	5.5	71
5.1	28.5		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	15	14	13	15	16	17	16	11	10	9.9
2	13	14	15	14	13	15	16	17	16	12	9.9	9.7
3	15	14	14	14	12	15	16	17	16	12	9.9	9.6
4	13	14	14	14	12	15	16	17	15	12	10	9.6
5	13	14	14	13	12	15	16	17	15	12	11	9.6
6	13	14	14	8.8	12	15	17	16	14	11	11	9.5
7	13	14	14	10	12	15	18	16	15	11	10	9.6
8	13	14	14	14	12	15	18	18	25	10	9.9	9.4
9	13	14	14	13	12	15	19	18	40	10	9.8	9.7
10	13	14	14	12	12	15	18	17	23	10	9.6	9.7
11	13	14	14	16	13	15	18	15	18	9.9	9.6	9.5
12	13	14	14	15	13	16	18	16	18	9.9	9.4	8.9
13	13	14	14	15	14	16	18	16	16	9.9	9.4	8.6
14	14	14	14	14	14	15	18	15	14	9.9	9.7	9.0
15	14	14	14	13	14	15	18	15	14	9.3	9.7	11
16	14	14	14	14	14	15	18	16	15	9.3	9.7	11
17	14	14	14	13	14	15	18	16	14	9.3	9.7	11
18	14	14	14	14	14	15	18	16	13	9.3	10	10
19	14	14	12	14	14	15	17	17	13	9.9	10	10
20	14	14	10	14	14	15	17	16	12	9.9	9.8	11
21	14	14	12	14	14	15	17	16	13	9.9	11	11
22	14	14	14	14	15	16	17	16	12	10	11	11
23	14	14	16	14	14	16	17	17	12	10	11	11
24	14	14	15	14	14	16	17	17	13	11	9.7	10
25	14	14	14	13	15	16	17	19	12	12	10	10
26	14	14	14	14	14	16	17	18	12	12	11	10
27	14	9.3	14	12	14	16	17	18	12	11	10	10
28	15	10	14	13	15	16	17	17	11	11	11	10
29	15	14	14	13	---	16	17	17	11	10	10	10
30	15	15	14	13	---	16	17	16	11	10	10	11
31	14	---	14	14	---	16	---	16	---	10	10	---
TOTAL	425	412.3	431	416.8	375	477	518	520	461	324.5	312.8	300.3
MEAN	13.7	13.7	13.9	13.4	13.4	15.4	17.3	16.8	15.4	10.5	10.1	10.0
MAX	15	15	16	16	15	16	19	19	40	12	11	11
MIN	12	9.3	10	8.8	12	15	16	15	11	9.3	9.4	8.6
AC-FT	843	818	855	827	744	946	1030	1030	914	644	620	596

CAL YR 1976 TOTAL 6989.3 MEAN 19.1 MAX 62 MIN 9.3 AC-FT 13860
WTR YR 1977 TOTAL 4973.7 MEAN 13.6 MAX 40 MIN 8.6 AC-FT 9870

13083000 TRAPPER CREEK NEAR OAKLEY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1976 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1974-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
06...	1400	14	285	8.4	7.5	7.5	--	120	0
DEC									
15...	1245	14	270	--	-5.0	.0	0	--	--
JAN									
26...	1515	14	247	--	-4.0	.0	0	--	--
MAR									
02...	1515	14	245	--	-1.0	6.0	0	--	--
APR									
13...	1500	18	211	--	10.5	13.5	0	--	--
MAY									
18...	1500	16	238	--	4.5	8.5	51	--	--
JUN									
16...	1415	15	638	--	19.0	18.5	0	--	--
JUL									
25...	1610	11	250	--	24.5	22.5	2	--	--
SEP									
15...	1020	9.9	296	8.4	16.0	12.0	0	130	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV									
06...	40	4.8	6.8	11	.3	3.4	160	0	131
DEC									
15...	--	--	--	--	--	--	--	--	--
JAN									
26...	--	--	--	--	--	--	--	--	--
MAR									
02...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
MAY									
18...	--	--	--	--	--	--	--	--	--
JUN									
16...	--	--	--	--	--	--	--	--	--
JUL									
25...	--	--	--	--	--	--	--	--	--
SEP									
15...	43	4.9	5.7	9	.2	3.2	160	0	130

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV									
06...	7.3	5.2	.2	22	170	.23	6.43	.25	.03
DEC									
15...	--	--	--	--	--	--	--	--	--
JAN									
26...	--	--	--	--	--	--	--	--	--
MAR									
02...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
MAY									
18...	--	--	--	--	--	--	--	--	--
JUN									
16...	--	--	--	--	--	--	--	--	--
JUL									
25...	--	--	--	--	--	--	--	--	--
SEP									
15...	6.2	4.8	.1	23	170	.23	4.55	.06	.03

13083500 OAKLEY RESERVOIR NEAR OAKLEY, ID

LOCATION.--Lat 42°11'50", long 113°54'50", in sec.19, T.14 S., R.22 E., Cassia County, Hydrologic Unit 17040211, just upstream from right abutment of Oakley Dam on Goose Creek, 4 mi (6.4 km) southwest of Oakley, and at mile 29.9 (48.1 km).

DRAINAGE AREA.--729 mi² (1,888 km²).

PERIOD OF RECORD.--October 1912 to current year.

REVISED RECORDS.--WSP 1567: Drainage area.

GAGE.--Nonrecording gage. Altitude of gage is 4,630 ft or 1,410 m (by barometer).

REMARKS.--Reservoir is formed by earth dam constructed in 1911-13; storage began in 1911. Capacity, 74,350 acre-ft (91.7 hm³) between gage heights 0.0 (bottom of diversion tunnel) and 136.0 ft or 41.5 m (crest of spillway). Dead storage negligible. Water is used for irrigation of lands along Goose Creek in Oakley Canal Co. project. Figures given herein represent usable contents.

COOPERATION.--Gage readings and capacity table furnished by Oakley Canal Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 74,600 acre-ft (92.0 hm³) June 15, 1921 (gage height, 136.2 ft or 41.5 m); reservoir drained at close of irrigation season in 1915, 1919-20, 1926, 1933, 1950, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 48,600 acre-ft (59.9 hm³) Apr. 15 (gage height, 110.5 ft or 33.68 m); minimum observed, 21,400 acre-ft (26.4 hm³) Sept. 30 (gage height, 73.8 ft or 22.49 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

70.0	19,300	100.0	39,800
80.0	25,200	110.0	48,200
90.0	32,100	120.0	57,200

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	39800	41100	---	---	---	47400	46400	---	---	29600	---
2	---	---	---	---	---	45300	---	---	---	---	---	---
3	---	---	---	42000	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	39300	---	---
5	---	---	---	---	---	---	---	---	---	---	---	23600
6	---	40000	---	---	---	---	---	---	45900	---	---	---
7	---	---	---	---	43700	45600	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	28200	---
9	---	---	---	---	---	---	---	45900	---	---	---	---
10	---	---	---	42200	---	---	---	---	---	---	---	---
11	38800	---	---	---	---	---	48500	---	---	---	---	---
12	---	40200	---	---	---	---	---	---	---	---	---	22800
13	---	---	41700	---	---	---	48600	---	44500	36100	---	---
14	---	---	---	42500	44300	45900	---	---	---	35400	---	---
15	---	---	41600	---	---	---	48600	45000	---	---	27200	22200
16	---	---	---	---	---	---	---	---	44200	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	39300	---	---	---	---	---	---	44600	---	---	---	---
19	---	---	---	---	---	---	---	---	---	33300	---	---
20	---	---	---	---	---	---	---	---	43800	---	---	21800
21	---	---	---	---	44700	46300	---	---	---	---	---	---
22	---	41100	---	---	---	---	---	---	---	---	25600	---
23	---	---	---	---	---	---	---	45200	---	---	---	---
24	---	---	---	43000	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	47700	---	---	31100	---	---
26	---	---	---	43100	---	---	---	---	---	---	---	21600
27	---	---	42000	---	---	---	---	---	41900	---	---	---
28	---	---	---	---	45200	47000	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	24400	---
30	---	41100	---	---	---	---	46600	45600	40700	---	---	21400
31	39800	---	42000	43500	---	47300	---	45600	---	29800	24200	---
MAX	39800	41100	42000	43500	45200	47300	---	46400	---	---	29600	---
MIN	---	39800	41100	---	---	---	---	---	---	29800	24200	---
(†)	---	---	---	104.5	---	---	---	---	101.1	---	---	73.8
(‡)	+1700	+1300	+900	+1500	+1700	+2100	-700	-1000	-4900	-10900	-5600	-2800

CAL YR 1976............ ‡ +1100
WTR YR 1977............ ‡ -16700

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

13085500 MINIDOKA NORTH SIDE PUMP CANAL NEAR BURLEY, ID

LOCATION.--Lat 42°32'01", long 113°56'49", in SW¼SW¼ sec.24, T.10 S., R.21 E., Jerome County, Hydrologic Unit 17040209, at head of canal, 4 mi (6.4 km) east of Milner, and 8 mi (12.9 km) west of Burley.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Sparling meter at pumping plant.

REMARKS.--Records good. Flow controlled by pumping plant which lifts water from Snake River for irrigation of 14,500 acres (5,870 hm²) of land in Minidoka North Side project.

COOPERATION.--Record of pump operation and 9 discharge measurements furnished by A and B Irrigation District.

AVERAGE DISCHARGE.--21 years, 72.4 ft³/s (2.050 m³/s), 52,450 acre-ft/yr (64.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 275 ft³/s (7.79 m³/s) July 15-24, 1975; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	.00	.00	.00	.00	.00	.00	159	74	269	208	105
2	56	.00	.00	.00	.00	.00	.00	134	104	261	225	105
3	52	.00	.00	.00	.00	.00	.00	147	121	261	230	104
4	48	.00	.00	.00	.00	.00	.00	140	147	260	214	104
5	43	.00	.00	.00	.00	.00	.00	128	147	255	202	107
6	40	.00	.00	.00	.00	.00	.00	125	184	249	194	107
7	34	.00	.00	.00	.00	.00	.00	106	201	253	192	102
8	34	.00	.00	.00	.00	.00	.00	106	201	255	204	100
9	34	.00	.00	.00	.00	.00	.00	108	200	250	212	96
10	34	.00	.00	.00	.00	.00	.00	111	200	252	209	83
11	34	.00	.00	.00	.00	.00	.00	121	160	253	210	83
12	33	.00	.00	.00	.00	.00	40	124	160	257	215	85
13	32	.00	.00	.00	.00	.00	54	131	142	264	209	84
14	32	.00	.00	.00	.00	.00	72	133	138	266	208	84
15	8.0	.00	.00	.00	.00	.00	89	134	138	267	216	84
16	.00	.00	.00	.00	.00	.00	99	151	133	259	220	82
17	.00	.00	.00	.00	.00	.00	99	155	139	259	223	71
18	.00	.00	.00	.00	.00	.00	113	152	148	265	219	71
19	.00	.00	.00	.00	.00	.00	120	144	148	271	208	68
20	.00	.00	.00	.00	.00	.00	121	142	169	271	198	52
21	.00	.00	.00	.00	.00	.00	132	147	183	266	198	47
22	.00	.00	.00	.00	.00	.00	130	147	194	269	181	42
23	.00	.00	.00	.00	.00	.00	133	150	206	255	187	42
24	.00	.00	.00	.00	.00	.00	133	143	239	256	180	28
25	.00	.00	.00	.00	.00	.00	136	129	247	256	182	28
26	.00	.00	.00	.00	.00	.00	146	118	248	243	165	30
27	.00	.00	.00	.00	.00	.00	157	110	280	209	131	30
28	.00	.00	.00	.00	.00	.00	160	.00	271	193	131	36
29	.00	.00	.00	.00	---	.00	154	.00	257	186	120	40
30	.00	.00	.00	.00	---	.00	160	.00	263	200	107	43
31	.00	---	.00	.00	---	.00	---	44	---	208	107	---
TOTAL	576.00	.00	.00	.00	.00	.00	2248.00	3639.00	5451	7738	5905	2143
MEAN	18.6	.000	.000	.000	.000	.000	74.9	117	182	250	190	71.4
MAX	62	.00	.00	.00	.00	.00	160	159	280	271	230	107
MIN	.00	.00	.00	.00	.00	.00	.00	.00	74	186	107	28
AC-FT	1140	.00	.00	.00	.00	.00	4460	7220	10810	15350	11710	4250

CAL YR 1976 TOTAL 25940.00 MEAN 70.9 MAX 269 MIN .00 AC-FT 51450
WTR YR 1977 TOTAL 27700.00 MEAN 75.9 MAX 280 MIN .00 AC-FT 54940

13085800 P. A. LATERAL NEAR MILNER, ID

LOCATION.--Lat 42°32'10", long 113°58'20", in SE¼SE¼ sec.22, T.10 S., R.21 E., Jerome County, Hydrologic Unit 17040209, on left bank 600 ft (180 m) downstream from pumping station, 2.8 mi (4.5 km) northeast of Milner, and 9 mi (14 km) west of Burley.

PERIOD OF RECORD.--October 1915 to current year. Monthly discharges only for some periods, published in WSP 1317.

GAGE.--Nonrecording gage read daily. Altitude of gage is 4,196 ft or 1,279 m (river survey).

REMARKS.--Records excellent. Flow regulated by pumping plant which lifts water 65.3 ft (19.90 m) from Snake River for irrigation on North Side Twin Falls tract.

COOPERATION.--Gage-height record furnished by North Side Canal Co.

AVERAGE DISCHARGE.--29 years (1949-77), 25.5 ft³/s (0.722 m³/s), 18,470 acre-ft/yr (22.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge observed, 82 ft³/s (2.32 m³/s) July 11, 1973; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	.00	.00	.00	.00	.00	.00	64	54	66	74	.00
2	33	.00	.00	.00	.00	.00	.00	65	57	68	74	.00
3	26	.00	.00	.00	.00	.00	.00	66	57	70	74	.00
4	.00	.00	.00	.00	.00	.00	.00	66	57	70	74	.00
5	.00	.00	.00	.00	.00	.00	.00	66	57	70	74	47
6	.00	.00	.00	.00	.00	.00	.00	66	57	70	74	53
7	.00	.00	.00	.00	.00	.00	.00	67	57	70	74	68
8	.00	.00	.00	.00	.00	.00	.00	63	57	70	72	59
9	.00	.00	.00	.00	.00	.00	.00	63	57	66	72	74
10	.00	.00	.00	.00	.00	.00	.00	63	57	66	72	74
11	.00	.00	.00	.00	.00	.00	.00	58	60	65	72	72
12	.00	.00	.00	.00	.00	.00	.00	58	60	64	66	72
13	.00	.00	.00	.00	.00	.00	.00	58	60	63	66	68
14	.00	.00	.00	.00	.00	.00	15	58	60	61	66	66
15	.00	.00	.00	.00	.00	.00	15	58	60	60	69	55
16	.00	.00	.00	.00	.00	.00	15	57	60	59	70	59
17	.00	.00	.00	.00	.00	.00	15	57	60	69	70	59
18	.00	.00	.00	.00	.00	.00	16	57	60	68	70	59
19	.00	.00	.00	.00	.00	.00	38	57	60	68	70	59
20	.00	.00	.00	.00	.00	.00	39	57	60	69	70	59
21	.00	.00	.00	.00	.00	.00	46	57	60	69	72	53
22	.00	.00	.00	.00	.00	.00	47	56	60	69	74	53
23	.00	.00	.00	.00	.00	.00	47	56	60	69	74	47
24	.00	.00	.00	.00	.00	.00	48	56	60	74	73	47
25	.00	.00	.00	.00	.00	.00	49	55	58	74	73	37
26	.00	.00	.00	.00	.00	.00	49	55	58	75	71	.00
27	.00	.00	.00	.00	.00	.00	61	55	58	75	67	.00
28	.00	.00	.00	.00	.00	.00	62	55	58	75	67	.00
29	.00	.00	.00	.00	---	.00	62	55	66	78	22	.00
30	.00	.00	.00	.00	---	.00	63	55	66	77	.00	.00
31	.00	---	.00	.00	---	.00	---	54	---	77	.00	---
TOTAL	97.00	.00	.00	.00	.00	.00	687.00	1833	1771	2144	2016.00	1240.00
MEAN	3.13	.000	.000	.000	.000	.000	22.9	59.1	59.0	69.2	65.0	41.3
MAX	38	.00	.00	.00	.00	.00	63	67	66	78	74	74
MIN	.00	.00	.00	.00	.00	.00	.00	54	54	59	.00	.00
AC-FT	192	.00	.00	.00	.00	.00	1360	3640	3510	4250	4000	2460

CAL YR 1976 TOTAL 8768.00 MEAN 24.0 MAX 78 MIN .00 AC-FT 17390
WTR YR 1977 TOTAL 9788.00 MEAN 26.8 MAX 78 MIN .00 AC-FT 19410

13086000 MILNER LOW-LIFT CANAL NEAR MILNER, ID

LOCATION.--Lat 42°31'10", long 114°00'36", in SE¼SE¼ sec.29, T.10 S., R.21 E., Twin Falls County, Hydrologic Unit 17040209, at head of canal and 0.6 mi (1.0 km) east of Milner.

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1317. Prior to October 1922, published as Murtaugh canal near Milner.

GAGE.--Rated pumps. Prior to May 1, 1945, water-stage recorder at site 600 ft (180 m) downstream.

REMARKS.--Records excellent. Flow controlled by pumping plant which lifts water from Snake River above Milner Dam for irrigation of 13,400 acres (5,420 hm²) of land in Milner low-lift irrigation district. Pumps rated by current-meter measurements.

COOPERATION.--Record of pump operation furnished by Milner low-lift irrigation district.

AVERAGE DISCHARGE.--33 years (1945-77), 82.1 ft³/s (2.325 m³/s), 59,480 acre-ft/yr (73.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 301 ft³/s (8.52 m³/s) July 16-18, 1964; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	.00	.00	.00	.00	.00	.00	180	111	258	218	116
2	78	.00	.00	.00	.00	.00	.00	180	139	258	216	113
3	78	.00	.00	.00	.00	.00	.00	180	182	258	216	111
4	78	.00	.00	.00	.00	.00	.00	183	195	258	216	108
5	78	.00	.00	.00	.00	.00	.00	173	195	258	214	108
6	78	.00	.00	.00	.00	.00	.00	166	195	258	206	108
7	78	.00	.00	.00	.00	.00	.00	131	195	238	190	108
8	78	.00	.00	.00	.00	.00	.00	116	195	226	186	108
9	78	.00	.00	.00	.00	.00	.00	116	195	265	186	104
10	.00	.00	.00	.00	.00	.00	.00	121	175	264	186	103
11	.00	.00	.00	.00	.00	.00	12	124	157	263	186	103
12	.00	.00	.00	.00	.00	.00	20	144	155	257	199	103
13	.00	.00	.00	.00	.00	.00	20	152	151	251	211	103
14	.00	.00	.00	.00	.00	.00	38	163	138	251	213	103
15	.00	.00	.00	.00	.00	.00	66	169	140	247	213	104
16	.00	.00	.00	.00	.00	.00	76	174	141	230	199	104
17	.00	.00	.00	.00	.00	.00	76	177	141	229	192	104
18	.00	.00	.00	.00	.00	.00	85	177	141	240	192	103
19	.00	.00	.00	.00	.00	.00	90	177	141	253	192	102
20	.00	.00	.00	.00	.00	.00	109	177	162	258	185	87
21	.00	.00	.00	.00	.00	.00	136	177	173	258	180	82
22	.00	.00	.00	.00	.00	.00	162	177	173	227	171	82
23	.00	.00	.00	.00	.00	.00	174	177	173	122	168	82
24	.00	.00	.00	.00	.00	.00	180	177	180	239	168	82
25	.00	.00	.00	.00	.00	.00	180	163	194	242	168	69
26	.00	.00	.00	.00	.00	.00	180	150	199	238	168	62
27	.00	.00	.00	.00	.00	.00	180	135	211	238	168	61
28	.00	.00	.00	.00	.00	.00	180	118	226	233	163	61
29	.00	.00	.00	.00	---	.00	180	112	250	232	160	61
30	.00	.00	.00	.00	---	.00	180	112	258	227	150	46
31	.00	---	.00	.00	---	.00	---	112	---	225	125	---
TOTAL	702.00	.00	.00	.00	.00	.00	2324.00	4790	5281	7501	5805	2791
MEAN	22.6	.000	.000	.000	.000	.000	77.5	155	176	242	187	93.0
MAX	78	.00	.00	.00	.00	.00	180	183	258	265	218	116
MIN	.00	.00	.00	.00	.00	.00	.00	112	111	122	125	46
AC-FT	1390	.00	.00	.00	.00	.00	4610	9500	10470	14880	11510	5540

CAL YR 1976 TOTAL 30440.00 MEAN 83.2 MAX 296 MIN .00 AC-FT 60380
WTR YR 1977 TOTAL 29194.00 MEAN 80.0 MAX 265 MIN .00 AC-FT 57910

13086500 GOODING CANAL AT MILNER, ID

LOCATION.--Headgates of canal, lat 42°31'36", long 114°00'34", in SW¼NW¼ sec.28, T.10 S., R.21 E., Jerome County, Hydrologic Unit 17040212, at Milner Dam.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder on Milner-Gooding Canal at site 3.4 mi (5.5 km) downstream, nonrecording gage on A lateral 1.9 mi (3.1 km) downstream, and differential recorder on control gates of North Side diversion 3.4 mi (5.5 km) downstream, all referred to Milner Lake.

REMARKS.--Records good. Gooding Canal divides into the three canals described in Gage paragraph. Milner-Gooding Canal delivers water to the Milner-Gooding project of the Bureau of Reclamation. The North Side diversion and A lateral carry water to part of the North Side Canal Co. project, which also receives water through the North Side Twin Falls Canal and P. A. lateral (stas 13087000 and 13085800). Discharge is computed by combining the discharge at the three measuring sites and adding 35 ft³/s (0.991 m³/s) for losses between Milner Lake and division points.

AVERAGE DISCHARGE.--42 years (1936-77), total 1,053 ft³/s (29.8 m³/s), 762,900 acre-ft/yr (941 hm³/hr); Milner-Gooding project, 606 ft³/s (17.2 m³/s); North Side Canal Co. project, 448 ft³/s (12.7 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,770 ft³/s (78.4 m³/s) July 22, 1964, and July 18, 1967; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	850	.00	.00	.00	.00	970	1910	1800	2150	1990	370
2	1640	770	.00	.00	.00	.00	1040	1910	1800	2160	1970	370
3	1640	610	.00	.00	.00	.00	1060	1910	1800	2150	1970	370
4	1640	610	.00	.00	.00	.00	1280	1900	1740	2150	1980	370
5	1630	620	.00	.00	.00	.00	1440	1880	1910	2120	1980	370
6	1640	780	.00	.00	.00	.00	1210	1850	1960	2100	1980	360
7	1640	900	.00	.00	.00	.00	1430	1840	1960	2130	1970	370
8	1630	860	.00	.00	.00	.00	1510	1810	1950	2120	1980	360
9	1630	860	.00	.00	.00	.00	1500	1800	1950	2110	1970	360
10	1610	810	.00	.00	.00	340	1580	1800	1940	2100	1970	360
11	1140	810	.00	.00	.00	500	1620	1800	1950	2090	1970	510
12	910	820	.00	.00	.00	460	1620	1800	1950	2100	1960	570
13	910	810	.00	.00	.00	.00	1620	1800	1950	2100	1970	560
14	910	810	.00	.00	.00	80	1620	1790	1950	2110	1970	560
15	900	800	.00	.00	.00	270	1640	1810	1970	2090	1970	560
16	890	790	.00	.00	.00	240	1640	1850	1970	2090	1970	560
17	910	800	.00	.00	.00	370	1650	1850	1970	2110	1950	560
18	900	810	.00	.00	.00	520	1650	1830	1970	2120	1960	560
19	930	820	.00	.00	.00	740	1650	1810	1970	2140	1970	560
20	990	820	.00	.00	.00	730	1680	1810	1970	2130	1960	560
21	1090	810	.00	.00	.00	740	1730	1810	1970	2110	1960	560
22	1090	800	.00	.00	.00	730	1730	1810	1970	2120	1960	570
23	1090	800	.00	.00	.00	720	1730	1810	1970	2110	1960	570
24	1080	810	.00	.00	.00	720	1740	1810	1980	2110	1960	570
25	1070	810	.00	.00	.00	790	1740	1810	1980	2050	1960	650
26	1090	800	.00	.00	.00	850	1730	1810	2140	2010	1960	750
27	1070	800	.00	.00	.00	840	1830	1810	2240	2000	1960	730
28	1070	480	.00	.00	.00	840	1910	1810	2230	2000	1950	720
29	970	.00	.00	.00	---	850	1910	1810	2230	2010	1710	750
30	860	.00	.00	.00	---	850	1900	1810	2180	2000	1480	750
31	860	---	.00	.00	---	850	---	1800	---	2000	760	---
TOTAL	37070	21870.00	.00	.00	.00	13030.00	47360	56660	59320	64890	59030	15840
MEAN	1196	729	.000	.000	.000	420	1579	1828	1977	2093	1904	528
MAX	1640	900	.00	.00	.00	850	1910	1910	2240	2160	1990	750
MIN	860	.00	.00	.00	.00	.00	970	1790	1740	2000	760	360
AC-FT	73530	43360	.00	.00	.00	25840	93940	112400	117700	128700	117100	31420

CAL YR 1976 TOTAL 425380.00 MEAN 1162 MAX 2620 MIN .00 AC-FT 843700
WTR YR 1977 TOTAL 375070.00 MEAN 1028 MAX 2240 MIN .00 AC-FT 744000

13087000 NORTH SIDE TWIN FALLS CANAL AT MILNER, ID

LOCATION.--Lat 42°31'47", long 114°01'11", in NE¼NW¼ sec.29, T.10 S., R.21 E., Jerome County, Hydrologic Unit 17040212, on right bank 0.6 mi (1.0 km) downstream from headgates at Milner Dam and 0.8 mi (1.3 km) north of Milner.

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1347: 1912, 1917.

GAGE.--Water-stage recorder. Datum of gage is 4,123.4 ft (1,256.81 m) above mean sea level. Prior to Apr. 1, 1916, nonrecording gages at two sites within 0.5 mi (0.8 km) of present site at slightly different datum.

REMARKS.--Records excellent. Flow controlled by headgates. Water diverted by this canal and by P. A. lateral and part of that diverted by Gooding Canal, all at Milner, is used for irrigation of 160,000 acres (64,800 hm²) of land under the North Side Canal Co. system. Diversions began in April 1908.

COOPERATION.--Water-stage recorder inspected by North Side Canal Co.

AVERAGE DISCHARGE.--42 years (1936-77), 1,205 ft³/s (34.13 m³/s), 873,000 acre-ft/yr (1,076 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,240 ft³/s (91.8 m³/s) July 22, 1964; no flow at times when headgates were closed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	.00	.00	.00	.00	.00	290	1680	1690	2090	2100	.00
2	1170	.00	.00	.00	.00	.00	290	1680	1690	2100	2100	.00
3	1170	.00	.00	.00	.00	.00	363	1680	1740	2110	2100	.00
4	1220	.00	.00	.00	.00	.00	401	1680	1740	2160	2120	.00
5	1110	.00	.00	.00	.00	.00	404	1730	1820	2510	2110	.00
6	972	.00	.00	.00	.00	.00	516	1720	1960	2710	2120	.00
7	904	.00	.00	.00	.00	.00	593	1730	2010	2710	2120	680
8	860	.00	.00	.00	.00	.00	642	1630	2040	2590	2110	1020
9	831	.00	.00	.00	.00	.00	810	1540	2050	2510	2110	1030
10	817	.00	.00	.00	.00	125	932	1520	1900	2460	2110	1020
11	269	.00	.00	.00	.00	237	1060	1550	1640	2440	2130	1020
12	.00	.00	.00	.00	.00	239	1180	1550	1650	2450	2120	972
13	.00	.00	.00	.00	.00	232	1370	1550	1660	2460	2110	964
14	.00	.00	.00	.00	.00	242	1550	1550	1660	2450	1950	960
15	.00	.00	.00	.00	.00	239	1700	1690	1670	2440	1880	814
16	.00	.00	.00	.00	.00	275	1450	1700	1580	2440	1880	764
17	.00	.00	.00	.00	.00	497	1330	1710	1590	2450	1890	772
18	.00	.00	.00	.00	.00	526	1340	1690	1570	2450	1890	824
19	.00	.00	.00	.00	.00	347	1440	1690	1620	2450	1850	845
20	.00	.00	.00	.00	.00	282	1500	1680	1660	2200	1840	852
21	.00	.00	.00	.00	.00	280	1490	1680	1660	2060	1850	842
22	.00	.00	.00	.00	.00	265	1490	1680	1670	2080	1840	868
23	.00	.00	.00	.00	.00	255	1490	1670	1750	2100	1860	1040
24	.00	.00	.00	.00	.00	262	1500	1660	1810	2100	1840	350
25	.00	.00	.00	.00	.00	272	1510	1640	1800	2120	1830	.00
26	.00	.00	.00	.00	.00	280	1570	1610	1870	2130	1740	.00
27	.00	.00	.00	.00	.00	278	1590	1600	1890	2100	1700	.00
28	.00	.00	.00	.00	.00	285	1570	1640	1970	2080	1620	.00
29	.00	.00	.00	.00	---	296	1640	1650	2050	2090	626	.00
30	.00	.00	.00	.00	---	296	1680	1680	2100	2090	45	.00
31	.00	---	.00	.00	---	301	---	1700	---	2100	.00	---
TOTAL	10493.00	.00	.00	.00	.00	6311.00	34691	51160	53510	71250	55591.00	15637.00
MEAN	338	.000	.000	.000	.000	204	1156	1650	1784	2298	1793	521
MAX	1220	.00	.00	.00	.00	526	1700	1730	2100	2710	2130	1040
MIN	.00	.00	.00	.00	.00	.00	290	1520	1570	2060	.00	.00
AC-FT	20810	.00	.00	.00	.00	12520	68810	101500	106100	141300	110300	31020

CAL YR 1976 TOTAL 384032.00 MEAN 1049 MAX 3030 MIN .00 AC-FT 761700
WTR YR 1977 TOTAL 298643.00 MEAN 818 MAX 2710 MIN .00 AC-FT 592400

13087500 SOUTH SIDE TWIN FALLS CANAL AT MILNER, ID

LOCATION.--Lat 42°31'19", long 114°00'59", in SW¼SE¼ sec.29, T.10 S., R.21 E., Twin Falls County, Hydrologic Unit 17040212, on right bank 30 ft (9 m) upstream from highway bridge and 900 ft (270 m) downstream from headgates at Milner Dam.

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1347: 1910-16.

GAGE.--Water-stage recorder. Datum of gage is 4,121.5 ft (1,256.23 m) above mean sea level. Prior to May 13, 1913, nonrecording gage and May 13, 1913, to Apr. 24, 1914, water-stage recorder near present site, and Apr. 25, 1914, to May 13, 1960, water-stage recorder at site 50 ft (15 m) upstream, all at same datum.

REMARKS.--Records excellent except those below about 20 ft³/s (0.566 m³/s), which are fair. Flow controlled by headgates. Diversions began in March 1905 when 30,000 acres (12,100 hm²) was reported as irrigated. By 1912 this had increased to 147,000 acres (59,500 hm²), and in 1965 the irrigated area was reported to be 203,000 acres (82,200 hm²).

COOPERATION.--Water-stage recorder inspected by Twin Falls Canal Co.

AVERAGE DISCHARGE.--51 years (1927-77), 1,724 ft³/s (48.82 m³/s), 1,249,000 acre-ft/yr (1,540 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,600 ft³/s (130 m³/s) Aug. 12, 1918, including about 1,200 ft³/s (34.0 m³/s) wasted through spillway below station and returned to river; maximum daily discharge for irrigation use, 4,000 ft³/s (113 m³/s) July 16, 1971; no flow during nonirrigation season several years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	613	375	.00	.00	190	824	2980	2720	3200	3290	2700
2	1750	613	392	.00	.00	186	842	2960	2860	3160	3290	2710
3	1740	613	387	.00	.00	184	842	2980	3010	3180	3290	2680
4	1660	595	375	.00	.00	186	1020	2990	3220	3180	3290	2680
5	1430	538	370	.00	.00	182	1180	3000	3320	3190	3290	2680
6	1140	538	358	.00	.00	178	1430	2920	3310	3190	3310	2680
7	1070	529	350	.00	.00	178	1700	2880	3270	3190	3310	2280
8	992	526	338	.00	.00	180	1860	2890	3270	3140	3310	2010
9	943	520	335	.00	.00	182	2040	2930	3220	3140	3280	2020
10	922	526	330	.00	.00	186	2270	2970	3090	3120	3260	2020
11	901	520	320	.00	.00	178	2370	2980	2990	3150	3290	2010
12	870	520	312	.00	.00	180	2500	2910	2940	3160	3280	1810
13	870	523	302	.00	.00	178	2700	2880	2850	3150	3290	1720
14	985	532	302	.00	.00	209	2770	2870	2730	3160	3290	1710
15	1020	499	174	.00	.00	256	2800	3000	2650	3140	3200	1560
16	1030	468	.00	.00	140	318	2730	3000	2620	3170	2930	1520
17	1020	468	.00	.00	130	408	2730	3010	2630	3180	2920	1520
18	1060	478	.00	.00	128	438	2790	3030	2650	3180	2930	1530
19	1060	481	.00	.00	128	400	2830	3030	2650	3190	2940	1520
20	999	476	.00	.00	130	362	2850	3030	2680	3220	2940	1540
21	988	468	.00	.00	133	435	2840	3030	2760	3220	2940	1520
22	957	468	.00	.00	137	556	2820	3040	2860	3220	2920	1490
23	834	462	.00	.00	149	709	2820	2950	2920	3220	2950	1430
24	792	478	.00	.00	174	852	2820	2790	2990	3220	2930	1410
25	792	487	.00	.00	176	999	2860	2780	3010	3220	2940	1400
26	742	472	.00	.00	182	1110	2870	2710	3050	3220	2910	1390
27	691	470	.00	.00	180	1150	2920	2580	3030	3250	2910	1330
28	637	455	.00	.00	182	1170	2930	2560	3140	3260	2770	1290
29	625	435	.00	.00	---	1180	2940	2580	3140	3250	2700	1270
30	619	400	.00	.00	---	1140	2960	2590	3220	3280	2700	1250
31	616	---	.00	.00	---	954	---	2600	---	3300	2710	---
TOTAL	31505	15173	5020.00	.00	1969.00	15014	69858	89470	88800	99070	95310	54680
MEAN	1016	506	162	.000	70.3	484	2329	2886	2960	3196	3075	1823
MAX	1750	613	392	.00	182	1180	2960	3040	3320	3300	3310	2710
MIN	616	400	.00	.00	.00	178	824	2560	2620	3120	2700	1250
AC-FT	62490	30100	9960	.00	3910	29780	138600	177500	176100	196500	189000	108500

CAL YR 1976 TOTAL 581486.00 MEAN 1589 MAX 3970 MIN .00 AC-FT 1153000
WTR YR 1977 TOTAL 565869.00 MEAN 1550 MAX 3320 MIN .00 AC-FT 1122000

13087900 LAKE MILNER AT MILNER, ID

LOCATION.--Lat 42°31'25", long 114°00'47", in SW¼NE¼SE¼ sec.29, T.10 S., R.21 E., Twin Falls County, Hydrologic Unit 17040209, near left end of Milner Dam on Snake River, at Milner, at mile 640.0 (1,029.8 km).

DRAINAGE AREA.--17,180 mi^2 (44,500 km^2), approximately, excluding indeterminate nontributary area on Snake River Plain.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year. Gage heights only in Water District 01 annual reports.

GAGE.--Nonrecording gage. Datum of gage is 4,122.51 ft (1,256.541 m).

REMARKS.--Reservoir is formed by a concrete gravity dam constructed in 1904 with first diversions in 1905. The dam is primarily a diversion dam. Capacity is a function of the river flow and the lake elevation at the dam. No precise limits on capacity can be set, but computations indicate 48,500 acre-ft (59.8 hm^3) would be in storage at a lake gage of 12.0 ft (3.66 m) and a river flow of 25,000 ft^3/s (708 m^3/s), and 6,580 acre-ft (81.1 hm^3) at a gage of 15 ft (4.57 m) and a river flow of 1,000 ft^3/s (28.3 m^3/s). Water is used for irrigation by canals diverting at the dam and by pumps from the reservoir.

COOPERATION.--Reservoir elevations furnished by Water District 01.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 45,800 acre-ft (56.5 hm^3) May 23, 24, 1976; maximum gage height observed, 11.40 ft (3.475 m) Aug. 1, 1975; minimum contents observed, 12,200 acre-ft (15.0 hm^3) May 10, 11, 1976; minimum gage height observed, 3.00 ft (0.914 m) Jan. 3, 11, 12, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 36,500 acre-ft (45.0 hm^3) July 7; maximum gage height observed, 11.20 ft (3.413 m) July 8; minimum contents observed, 13,100 acre-ft (16.2 hm^3) Feb. 17, 18; minimum gage height observed, 3.00 ft (0.914 m) Jan. 3, 11, 12.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
AM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29000	21600	23400	14400	15600	20400	31900	32600	32000	34900	34300	29500
2	29000	21700	24800	14200	15400	20400	31500	32500	30900	35000	34100	29500
3	28500	21900	23500	14200	15800	20600	31400	32700	32200	35400	33800	29300
4	29700	22100	23200	14400	15800	20600	30500	32700	33000	35700	33400	29100
5	30300	22400	23000	14400	16100	21700	30600	33300	33900	36000	33300	28800
6	29900	22200	22000	14400	16500	22100	31400	33600	34400	36200	33400	28600
7	29600	22100	21100	14000	16900	21900	32100	34100	34700	36500	33400	28900
8	28700	21800	20900	14100	17000	21900	32200	34000	34700	36400	33500	28000
9	27400	21800	19500	14400	17500	22500	32000	33600	34600	36200	33500	27800
10	27200	22000	18600	13700	18500	21800	31200	33000	34200	35600	33400	29500
11	25700	22400	17400	13200	16900	22400	31600	32600	33800	35700	32900	29600
12	25700	22500	16500	13500	15300	22800	31200	32000	33900	35900	32800	28700
13	25100	22500	16200	13600	15100	21900	31500	31900	33900	35100	32700	29100
14	24200	22300	16500	13600	15300	23100	30500	32100	33900	35700	32600	28600
15	23700	21800	15600	14000	15300	22600	31400	32300	33700	35600	32800	28100
16	22700	21700	15400	14800	13300	23100	30900	33400	33700	35600	33300	28100
17	22500	22300	15400	14800	13100	23100	29900	32400	33700	35400	33400	28000
18	23500	22600	15300	14800	13100	25500	30500	32900	33700	35100	33300	28500
19	22500	22300	14300	14800	13300	28000	30500	33300	33700	35100	33100	29100
20	20900	22000	14200	14800	13300	29300	31800	33600	33700	34800	32800	29200
21	21000	21600	14200	15100	13500	28100	32300	33300	33600	34800	32500	29100
22	20900	21500	14700	15600	14400	27400	32700	33100	33500	34800	32400	29900
23	21000	22200	14300	16100	14900	26800	32700	33000	34000	35200	32400	30200
24	21500	24200	14400	16400	17600	27500	32500	33100	33700	35100	32400	30000
25	21300	23400	14200	16500	19800	28600	32600	33100	33800	34900	32200	29400
26	21800	23600	14400	16700	19600	30400	31200	33200	34300	35000	31800	28900
27	22500	23900	14400	16700	20300	31100	32500	32800	34200	34800	31000	28300
28	22200	23300	14200	16700	20300	28800	32600	33000	34300	34900	30100	27300
29	22900	22000	14700	16800	---	31100	32900	32600	34700	34600	28700	26100
30	22800	22200	14700	16700	---	32200	32900	32300	34700	34400	29400	24800
31	21700	---	14400	16500	---	32600	---	31900	---	34400	29200	---
MAX	30300	24200	24800	16800	20300	32600	32900	34100	34700	36500	34300	30200
MIN	20900	21500	14200	13200	13100	20400	29900	31900	30900	34400	28700	24800
(†)	7.30	5.00	3.30	4.20	6.90	11.00	10.30	10.20	10.58	10.62	9.97	9.20
(‡)	-7200	+500	-7800	+2100	+3800	+12300	+300	-1000	+2800	-300	-5200	-4400

CAL YR 1976............ ‡ -9500
WTR YR 1977............ ‡ -4100

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

13087900 LAKE MILNER AT MILNER DAM, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Discharge computed using gaging station 13088000 0.4 mi (0.6 km) downstream and releases into canal at Milner Dam.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 05...	0720	5500	403	8.2	3.0	12.0	10	9.5	102	--	233	--
NOV 02...	1600	4580	468	8.4	16.0	8.5	5	11.1	110	16	253	180
DEC 10...	0800	6100	481	8.0	-4.0	1.0	7	11.8	96	14	120	--
JAN 14...	0735	4150	517	7.5	-4.0	.0	5	11.9	95	0	380	--
FEB 24...	0735	1350	502	8.3	-2.0	2.0	6	11.0	92	13	72	210
MAR 25...	0720	4140	446	8.4	-2.0	3.0	7	11.6	99	13	86	--
APR 15...	0730	5270	454	8.3	4.5	7.5	8	10.1	98	18	550	--
MAY 24...	1540	6590	450	8.6	14.0	12.5	8	9.6	104	13	--	--
JUN 30...	1100	8230	423	8.3	21.0	19.5	9	8.2	102	16	86	--
JUL 26...	1100	7560	451	7.9	29.0	21.0	5	6.9	88	13	66	--
AUG 30...	1800	4790	* 479	8.1	22.0	18.0	10	7.4	90	10	86	--
SEP 21...	1715	3510	481	7.4	16.0	15.0	7	10.2	116	15	34	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 05...	--	--	--	--	--	--	--	180	0	148	--	--
NOV 02...	24	45	17	23	21	.7	4.3	180	5	156	41	24
DEC 10...	--	--	--	--	--	--	--	200	0	164	--	--
JAN 14...	--	--	--	--	--	--	--	240	0	197	--	--
FEB 24...	30	55	17	24	20	.7	4.6	* 220	0	180	46	23
MAR 25...	--	--	--	--	--	--	--	210	7	184	--	--
APR 15...	--	--	--	--	--	--	--	200	0	164	--	--
MAY 24...	--	--	--	--	--	--	--	190	7	168	--	--
JUN 30...	--	--	--	--	--	--	--	200	0	164	--	--
JUL 26...	--	--	--	--	--	--	--	200	0	164	--	--
AUG 30...	--	--	--	--	--	--	--	200	0	164	--	--
SEP 21...	--	--	--	--	--	--	--	200	0	164	--	--

* Not a field determination.

B Results based on count outside of ideal colony count range.

13087900 LAKE MILNER AT MILNER DAM, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 05...	10	264	.36	3920	25	.02	.00	.51	.51	.53	2.3	.08
NOV 02...	20	277	.38	3430	20	.01	.00	.60	.60	.61	2.7	.10
DEC 10...	17	288	.39	4740	16	.27	.08	.66	.74	1.0	4.5	.06
JAN 14...	19	297	.40	3330	1	.43	.24	.32	.56	.99	4.4	.02
FEB 24...	20	308	.42	1120	0	.49	.25	.50	.75	1.2	5.5	.07
MAR 25...	17	294	.40	3290	7	.32	.21	.54	.75	1.1	4.7	.10
APR 15...	17	285	.39	4060	12	.28	.03	.78	.81	1.1	4.8	.09
MAY 24...	10	261	.36	4640	14	1.2	.11	.32	.43	1.6	7.2	.05
JUN 30...	9.3	255	.35	5670	12	.12	.16	.39	.55	.67	3.0	.06
JUL 26...	16	270	.37	5510	4	.75	.14	.34	.48	1.2	5.4	.12
AUG 30...	23	289	.39	3740	27	.53	.05	.39	.44	.97	4.3	.15
SEP 21...	24	300	.41	2840	12	.62	.11	.40	.51	1.1	5.0	.07

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT 05...	3	<10	0	10	320	<100	.0	0	20	5.7	0
NOV 02...	4	<10	0	10	110	<100	.0	1	10	2.9	0
DEC 10...	5	<10	0	20	170	<100	.0	0	20	2.1	0
JAN 14...	3	<10	0	10	240	<100	.1	0	30	2.1	0
FEB 24...	3	<10	0	40	120	<100	.1	1	50	2.5	0
MAR 25...	3	<10	0	<10	180	<100	.0	1	10	1.5	0
APR 15...	2	<10	10	40	240	<100	.0	0	60	3.7	0
MAY 24...	2	<10	0	50	240	<100	.1	0	50	2.6	0
JUN 30...	3	<10	10	60	100	<100	.1	1	70	2.3	0
JUL 26...	6	<10	0	40	170	<100	.7	1	70	2.2	0
AUG 30...	3	<10	20	<10	270	<100	.0	0	10	1.9	0
SEP 21...	3	<10	0	<10	150	<100	.0	0	10	2.3	0

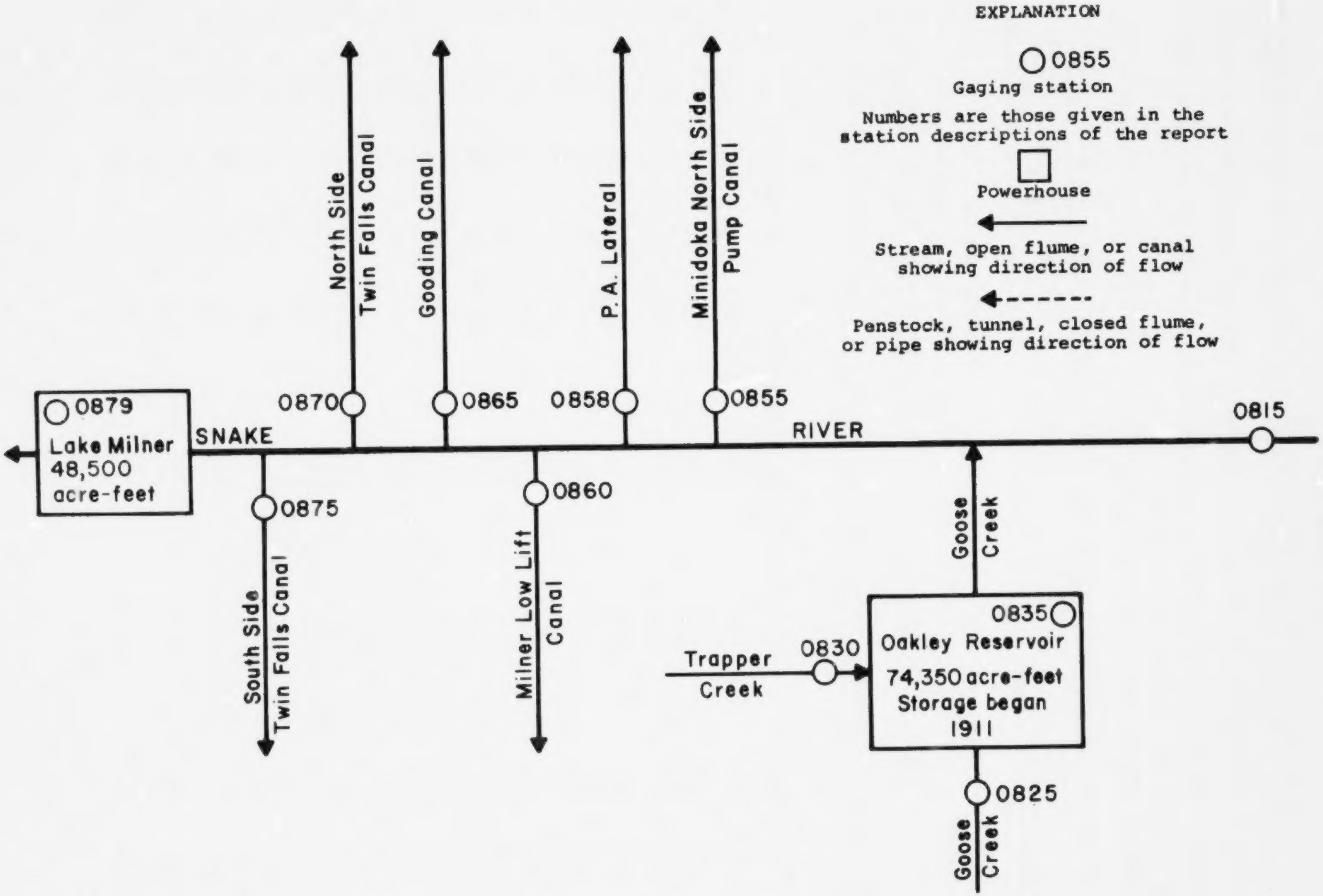
EXPLANATION
○ 0855
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
0879
Lake Milner
48,500
acre-feet
SNAKE
RIVER
0870
North Side
Twin Falls Canal
0865
Gooding Canal
0858
P. A. Lateral
0855
Minidoka North Side
Pump Canal
0815
0875
South Side
Twin Falls Canal
0860
Milner Low Lift
Canal
Goose
Creek
0835
Oakley Reservoir
74,350 acre-feet
Storage began
1911
Trapper
Creek
0830
0825
Goose
Creek

FIGURE 14.--Gaging stations in Snake River basin between Minidoka and Milner.

13088000 SNAKE RIVER AT MILNER, ID

LOCATION.--Lat 42°31'41", long 114°01'04", in SW¼NE¼ sec.29, T.10 S., R.21 E., Twin Falls County, Hydrologic Unit 17040212, on left bank, 200 ft (60 m) downstream from highway bridge at Milner, 0.4 mi (0.6 km) downstream from Milner Dam, and at mile 638.7 (1,027.7 km).

DRAINAGE AREA.--17,180 mi² (44,500 km²), approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1347: 1909-12, 1915-16, 1942-44, 1946-48.

GAGE.--Water-stage recorder. Datum of gage is 4,062.9 ft (1,238.37 m) above mean sea level. Prior to May 28, 1919, nonrecording gages at slightly different sites and datums.

REMARKS.--Records good. Flow regulated by American Falls Reservoir (see sta 13076500), Lake Walcott (see sta 13081000), and other reservoirs having a combined usable capacity of about 4,700,000 acre-ft (5,800 hm³). Considerable water leaks into the Snake Plain aquifer above station. Diversions above station for irrigation of about 1,990,000 acres (805,000 hm²) of which about 504,000 acres (204,000 hm²) are by withdrawals from ground water and about 436,000 acres (176,000 hm²) are irrigated below station. Return flow in large part enters Snake River between Milner and King Hill station. At times practically entire flow is diverted during irrigation season.

COOPERATION.--Observer readings furnished by Twin Falls Canal Co. and North Side Canal Co.

AVERAGE DISCHARGE.--51 years (1927-77), 2,491 ft³/s (70.55 m³/s), 1,805,000 acre-ft/yr (2,230 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft³/s (1,130 m³/s) June 21, 1918 (gage height, 19.9 ft or 6.07 m), site and datum then in use); minimum, 2 ft³/s (0.057 m³/s) Mar. 17-28, 1936, Aug. 9 to Sept. 7, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,220 ft³/s (261 m³/s) Dec. 2 (gage height, 13.22 ft or 4.029 m); minimum, 2.2 ft³/s (0.062 m³/s) May 14 (gage height, 1.28 ft or 0.390 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	2980	8070	4200	4550	3550	1780	3.3	5.5	11	12	8.2
2	1290	2980	9040	4260	4280	3630	1670	3.0	5.0	11	11	8.3
3	1290	3030	8670	3970	4220	3790	1470	3.2	5.5	12	11	8.2
4	1670	3060	8250	4110	4110	3890	488	3.2	6.0	13	10	7.8
5	2240	3160	7880	4420	4100	4190	23	3.9	6.8	11	9.9	7.5
6	2820	3200	7550	4380	4020	4140	13	4.8	6.8	11	10	7.4
7	3150	3150	7120	4110	3980	4090	11	6.3	7.3	14	9.8	7.4
8	3360	3090	7070	3790	3690	4120	11	6.4	7.1	17	9.6	7.1
9	3360	3070	6330	4100	3450	4140	9.1	6.5	7.3	15	9.8	7.6
10	3270	3090	6110	4140	4130	3550	8.8	4.9	7.1	12	9.4	7.7
11	4280	3200	5530	3710	4710	3480	7.3	3.9	6.2	11	9.2	7.7
12	5010	3380	5120	3100	4100	3700	4.8	3.3	6.5	12	8.6	7.5
13	4970	3520	4770	3960	3780	3570	4.5	2.9	6.5	11	8.6	7.7
14	4580	3510	4540	4190	3950	3720	4.1	2.6	6.8	12	8.6	7.5
15	4400	3370	4440	4060	3810	3370	4.1	3.0	7.1	12	9.0	7.2
16	4030	3360	4500	4200	3410	2920	4.0	3.7	7.3	11	8.9	7.0
17	3330	3410	4370	4360	2650	2160	3.8	3.5	7.3	10	9.2	7.1
18	3470	3510	4260	4380	2470	1090	4.0	4.1	7.1	11	8.6	7.5
19	3500	3510	4300	4330	2520	611	4.0	4.7	7.1	11	8.4	7.8
20	2770	3480	4090	4320	2550	1080	4.4	5.5	6.8	11	8.1	8.1
21	2460	3370	4090	4310	2480	2240	3.4	5.3	7.1	11	7.7	8.4
22	2440	3320	4420	4460	2140	2220	3.7	5.7	6.8	12	7.9	8.9
23	2470	3330	4380	4580	1490	1790	3.7	5.7	7.3	12	7.3	9.3
24	2530	4110	4240	4700	1770	1570	3.6	5.7	7.6	13	7.3	8.5
25	2440	4850	4330	4750	3090	1520	3.7	6.2	7.6	14	7.5	8.7
26	2620	4900	4270	4760	3230	1610	3.2	6.2	8.2	13	8.0	11
27	2840	5180	4110	4820	3570	1730	3.4	6.2	8.2	13	7.6	14
28	2910	5940	4410	4830	3620	1140	3.6	6.0	8.5	12	7.5	12
29	2980	6700	4270	4840	---	1060	3.3	6.0	8.8	12	9.7	11
30	3010	7060	4260	4870	---	825	3.3	5.7	9.7	12	7.2	11
31	2990	---	4200	4900	---	1650	---	5.5	---	12	7.8	---
TOTAL	93770	113820	168990	133910	95870	82146	5563.8	146.9	212.9	375	275.2	255.1
MEAN	3025	3794	5451	4320	3424	2650	185	4.74	7.10	12.1	8.88	8.50
MAX	5010	7060	9040	4900	4710	4190	1780	6.5	9.7	17	12	14
MIN	1290	2980	4090	3100	1490	611	3.2	2.6	5.0	10	7.2	7.0
AC-FT	186000	225800	335200	265600	190200	162900	11040	291	422	744	546	506

CAL YR 1976 TOTAL 2469942.5 MEAN 6748 MAX 18500 MIN 6.5 AC-FT 4899000
WTR YR 1977 TOTAL 695334.9 MEAN 1905 MAX 9040 MIN 2.6 AC-FT 1379000

13090000 SNAKE RIVER NEAR KIMBERLY, ID

LOCATION.--Lat 42°35'28", long 114°21'34", in NE¼NW¼ sec.4, T.10 S., R.18 E., Twin Falls County, Hydrologic Unit 17040212, on left bank 1,200 ft (370 m) downstream from Twin Falls powerplant, 2.2 mi (3.5 km) upstream from Shoshone Falls, 4 mi (6.4 km) north of Kimberly, and at mile 617.5 (993.6 km).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1923 to current year.

REVISED RECORDS.--WSP 1347: 1924-26, 1928-30, 1942-44, 1946-48.

GAGE.--Water-stage recorder. Datum of gage is 3,362.67 ft (1,024.942 m) above mean sea level (levels by Idaho Power Co.). Prior to Aug. 31, 1938, at site 2,000 ft (610 m) downstream at different datum.

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir 96.5 mi (155.3 km) upstream (see sta 13076500) and other reservoirs having a combined usable capacity of 4,700,000 acre-ft (5,800 hm³). Diurnal fluctuation caused by hydroelectric powerplant 1,200 ft (370 m) upstream. At times practically entire flow is diverted at Milner during irrigation season; no diversions between Milner and Kimberly. Diversion above station for irrigation of about 2,020,000 acres (817,000 hm²) of which about 537,000 acres (217,000 hm²) are by withdrawals from ground water and about 364,000 acres (147,000 hm²) are irrigated below the station. Considerable water leaks into the Snake Plain aquifer upstream, a small part of which returns through springs a few miles above station.

AVERAGE DISCHARGE.--54 years, 2,903 ft³/s (82.21 m³/s), 2,103,000 acre-ft/yr (2,590 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,200 ft³/s (770 m³/s) July 4, 1927 (gage height, 14.76 ft or 4.499 m, site and datum then in use), from rating curve extended above 20,000 ft³/s (566 m³/s); minimum recorded, 10 ft³/s (0.28 m³/s) May 17, 1944 (gage height, 1.15 ft or 0.350 m); minimum daily recorded, 95 ft³/s (2.69 m³/s) Apr. 20, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,530 ft³/s (270 m³/s) Dec. 2 (gage height, 14.39 ft or 4.386 m); minimum, 75 ft³/s (2.12 m³/s) Apr. 19 (gage height, 2.28 ft or 0.695 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.4	86	8.0	1,870
3.0	155	10.0	3,270
4.0	314	12.0	5,600
5.0	563	15.0	10,700
6.0	918		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	3280	8290	4280	4640	3630	2130	307	359	348	423	368
2	1850	3280	9230	4320	4370	3710	1990	326	326	372	407	394
3	1830	3310	9120	4250	4240	3820	1980	322	335	366	406	425
4	1960	3340	8660	4010	4210	3840	1430	310	348	371	399	413
5	2500	3410	8280	4440	4110	4200	504	323	332	378	400	409
6	3070	3490	7930	4470	4080	4150	126	348	349	382	409	428
7	3470	3430	7410	4250	4040	4100	148	347	355	365	407	425
8	3670	3380	7340	3930	3870	4110	217	333	340	376	371	409
9	3730	3360	6680	4100	3610	4190	275	346	348	377	396	402
10	3640	3360	6380	4150	3820	3760	283	347	379	388	398	423
11	4230	3430	5750	3910	4760	3500	275	342	369	388	393	427
12	5150	3610	5240	3480	4270	3780	279	342	389	360	447	416
13	5200	3750	4880	3870	3870	3650	293	340	384	363	425	406
14	4860	3770	4640	4250	3990	3770	290	326	369	379	391	399
15	4600	3670	4500	4170	3920	3580	293	336	381	378	378	401
16	4350	3600	4560	4220	3690	3180	298	351	385	376	379	404
17	3760	3650	4460	4380	3050	2740	292	332	352	366	392	406
18	3680	3720	4340	4440	2720	1820	297	345	359	380	396	405
19	3830	3750	4380	4370	2720	931	207	361	374	373	405	404
20	3350	3740	4190	4360	2760	1070	95	349	374	377	405	404
21	2850	3650	4170	4360	2740	2040	127	343	352	385	397	403
22	2830	3590	4450	4460	2570	2590	242	356	380	399	404	411
23	2830	3580	4470	4570	2070	2180	307	370	339	388	402	424
24	2890	3980	4320	4700	1620	1920	301	362	367	408	400	414
25	2840	5030	4390	4770	3020	1870	308	366	333	437	399	409
26	2920	4960	4360	4770	3360	1850	306	352	371	408	411	409
27	3120	5200	4190	4850	3600	2030	301	345	339	430	420	401
28	3230	5760	4450	4890	3720	1910	309	350	343	412	418	397
29	3270	6890	4360	4870	---	1250	304	355	349	394	422	404
30	3320	7170	4330	4910	---	1280	312	356	350	400	452	411
31	3300	---	4290	4920	---	1540	---	361	---	397	424	---
TOTAL	103980	120140	174030	135720	99440	87991	14519	10657	10730	11921	12576	12251
MEAN	3354	4005	5614	4378	3551	2838	484	344	358	385	406	408
MAX	5200	7170	9230	4920	4760	4200	2130	370	389	437	452	428
MIN	1830	3280	4170	3480	1620	931	95	307	326	348	371	368
AC-FT	206200	238300	345200	269200	197200	174500	28800	21140	21280	23650	24940	24300

CAL YR 1976 TOTAL 2553842 MEAN 6978 MAX 18800 MIN 296 AC-FT 5066000
WTR YR 1977 TOTAL 793955 MEAN 2175 MAX 9230 MIN 95 AC-FT 1575000

13090000 SNAKE RIVER NEAR KIMBERLY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPER-ATURE (DEG C)	TEMPER-ATURE (DEG C)	WEATHER	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
NOV 04...	1645	3340	732	7.7	9.5	9.5	--	250	2
DEC 17...	1615	4460	568	--	3.0	.0	0	--	--
MAR 06...	0845	4160	633	--	-.5	5.5	0	--	--
APR 16...	1545	310	680	--	17.0	15.0	0	--	--
MAY 17...	1620	335	640	--	6.5	11.5	10	--	--
JUL 27...	1255	460	615	--	29.0	20.5	1	--	--

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV 04...	58	25	59	34	1.6	5.6	300	0	246
DEC 17...	--	--	--	--	--	--	--	--	--
MAR 06...	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--
MAY 17...	--	--	--	--	--	--	--	--	--
JUL 27...	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
NOV 04...	70	36	.5	39	452	.61	4080	2.5	.04
DEC 17...	--	--	--	--	--	--	--	--	--
MAR 06...	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--
MAY 17...	--	--	--	--	--	--	--	--	--
JUL 27...	--	--	--	--	--	--	--	--	--

13091000 BLUE LAKES SPRING NEAR TWIN FALLS, ID

LOCATION.--Lat 42°36'53", long 114°28'06", in NE¼NW¼SE¼ sec.28, T.9 S., R.17 E., Jerome County, Hydrologic Unit 17040212, on left bank at outlet of upper Blue Lake, 0.6 mi (9.7 km) upstream from mouth, 1.2 mi (1.9 km) northwest of Perrine Memorial Bridge, 3.5 mi (5.6 km) north of Twin Falls, and 610.5 mi (982.3 km) upstream from mouth of Snake River.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,300 ft or 1,010 m (from topographic map).

REMARKS.--Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--27 years, 215 ft^3/s (6.089 m^3/s), 155,800 acre-ft/yr (192 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 256 ft^3/s (7.25 m^3/s) Nov. 10, 11, 1951, Oct. 24 to Nov. 13, 1952, Sept. 29, 30, 1953, Oct. 23, 24, 1957; mirimum daily, 175 ft^3/s (4.96 m^3/s) May 15-21, 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	228	208	196	193	190	184	181	181	196	205	212
2	224	228	208	196	193	190	184	181	181	196	205	212
3	224	224	208	199	193	190	184	181	181	196	205	212
4	224	224	208	199	193	190	184	181	181	196	208	212
5	224	224	205	199	193	187	184	181	181	196	208	212
6	224	224	205	199	193	187	184	178	184	196	208	212
7	228	224	205	199	193	187	184	178	184	196	208	212
8	228	220	205	196	193	187	184	178	184	196	208	212
9	228	220	205	196	193	187	184	178	184	199	208	212
10	228	220	202	196	193	187	184	178	184	199	208	212
11	228	220	202	196	193	187	184	178	187	199	208	212
12	228	220	202	196	190	187	184	178	187	199	208	212
13	228	220	202	199	190	187	184	178	187	199	208	212
14	228	220	202	199	190	187	184	178	187	199	208	212
15	228	220	199	199	190	187	184	175	187	199	212	216
16	228	220	199	199	190	187	184	175	187	202	212	216
17	228	216	199	196	190	184	184	175	187	202	212	216
18	228	216	199	196	190	184	184	175	190	202	212	216
19	228	216	199	196	190	184	181	175	190	202	212	216
20	228	212	199	196	190	184	181	175	190	202	212	216
21	228	212	196	196	190	184	181	175	190	202	212	216
22	228	212	196	196	190	184	181	178	190	202	212	220
23	228	208	196	196	190	184	181	178	190	205	212	220
24	228	208	199	196	190	184	181	178	193	205	212	220
25	228	208	199	196	190	184	181	178	193	205	212	220
26	232	208	199	196	190	184	181	178	193	205	212	220
27	232	208	199	196	190	184	181	178	193	205	212	220
28	232	208	199	202	190	184	178	178	193	205	212	220
29	232	208	199	193	---	184	178	178	193	205	212	220
30	232	205	199	193	---	184	178	178	193	205	212	216
31	232	---	199	193	---	184	---	178	---	205	212	---
TOTAL	7068	6501	6241	6100	5353	5764	5475	5512	5625	6220	6507	6456
MEAN	228	217	201	197	191	186	183	178	188	201	210	215
MAX	232	228	208	202	193	190	184	181	193	205	212	220
MIN	224	205	196	193	190	184	178	175	181	196	205	212
AC-FT	14020	12890	12380	12100	10620	11430	10860	10930	11160	12340	12910	12810

CAL YR 1976 TOTAL 74748 MEAN 204 MAX 232 MIN 190 AC-FT 148300
WTR YR 1977 TOTAL 72822 MEAN 200 MAX 232 MIN 175 AC-FT 144400

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13091000 BLUE LAKES SPRING NEAR TWIN FALLS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1968-69.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
07...	1515	216	666	7.8	10.0	12.5	--	230	45
DEC									
18...	1530	206	439	--	5.0	12.0	0	--	--
JAN									
28...	1300	199	618	--	-3.0	12.0	0	--	--
MAR									
04...	1000	166	511	7.9	4.0	15.0	--	--	--
04...	1430	184	525	--	6.0	15.5	2	--	--
APR									
14...	1600	183	589	--	9.5	15.5	0	--	--
MAY									
19...	1500	178	604	--	12.0	14.0	2	--	--
JUN									
19...	0840	178	598	--	12.5	13.0	0	--	--
JUL									
28...	0930	212	614	--	26.0	16.5	0	--	--
SEP									
16...	1015	215	628	8.1	17.0	15.5	1	240	52

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV									
07...	59	21	38	25	1.1	6.7	230	0	189
DEC									
18...	--	--	--	--	--	--	--	--	--
JAN									
28...	--	--	--	--	--	--	--	--	--
MAR									
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
MAY									
19...	--	--	--	--	--	--	--	--	--
JUN									
19...	--	--	--	--	--	--	--	--	--
JUL									
28...	--	--	--	--	--	--	--	--	--
SEP									
16...	60	22	37	24	1.0	6.6	230	0	190

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV									
07...	59	55	.4	37	398	--	--	1.9	.01
DEC									
18...	--	--	--	--	--	--	--	--	--
JAN									
28...	--	--	--	--	--	--	--	--	--
MAR									
04...	59	50	--	--	--	--	--	1.8	.00
04...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
MAY									
19...	--	--	--	--	--	--	--	--	--
JUN									
19...	--	--	--	--	--	--	--	--	--
JUL									
28...	--	--	--	--	--	--	--	--	--
SEP									
16...	63	48	.4	39	398	.54	231	1.9	.01

13093095 ROCK CREEK NEAR MOUTH, NEAR TWIN FALLS, ID

LOCATION.--Lat 42°37'25", long 114°31'58", in SW¼SW¼ sec.24, T.9 S., R.16 E., Twin Falls County, Hydrologic Unit 17040212, on right bank 0.8 mi (1.2 km) upstream from mouth, and 6 mi (10 km) northwest of Twin Falls.

DRAINAGE AREA.--300 mi² (483 km²).

PERIOD OF RECORD.--July 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,150 ft or 960 m (from topographic map). Record obtained at site 2 mi (3 km) upstream 1922-47; records not comparable.

REMARKS.--Records good. Flow partially regulated by fish hatchery and irrigation waste flow above station. Many diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft³/s (15.3 m³/s) Sept. 25, 1975 (gage height, 6.30 ft or 1.920 m); minimum, 73 ft³/s (2.07 m³/s) Mar. 18, 1977 (gage height, 3.37 ft or 1.027 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 482 ft³/s (13.7 m³/s) Oct. 2 (gage height, 6.05 ft or 1.844 m); minimum, 73 ft³/s (2.07 m³/s) Mar. 18 (gage height, 3.37 ft or 1.027 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.3	67	5.0	313
3.5	86	5.5	393
4.0	153	6.1	490
4.5	233		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	385	224	161	112	104	94	156	139	206	212	252	251
2	411	220	161	115	101	92	156	145	194	217	254	251
3	445	215	161	125	96	90	151	145	204	230	254	251
4	441	217	164	112	98	86	136	151	202	239	257	254
5	436	215	159	114	98	80	99	167	199	252	259	257
6	422	210	150	105	97	80	106	180	196	227	267	254
7	404	212	157	100	96	78	119	172	191	219	267	254
8	345	206	161	103	97	81	131	186	206	222	259	231
9	294	206	159	102	99	85	145	193	224	220	261	237
10	288	204	144	102	97	81	148	186	234	220	241	242
11	281	206	147	103	97	81	147	190	237	224	239	242
12	286	204	144	103	97	83	134	185	259	227	244	239
13	276	206	134	106	97	84	139	179	273	222	244	230
14	281	209	129	105	96	82	148	167	259	227	246	231
15	273	202	131	104	94	81	148	174	257	231	241	241
16	268	201	131	103	94	84	141	198	251	222	230	237
17	267	194	135	104	95	85	139	199	242	225	222	237
18	261	196	132	102	94	81	150	224	236	224	234	239
19	261	196	128	105	95	87	151	220	251	220	237	247
20	261	190	124	106	96	87	151	210	254	222	239	249
21	261	188	138	106	99	81	150	204	230	222	236	254
22	262	185	150	108	94	80	138	217	230	239	237	261
23	257	183	144	106	86	86	135	236	228	241	233	265
24	244	183	128	104	86	90	135	231	231	267	233	261
25	241	186	119	105	88	98	132	228	230	270	236	262
26	231	174	119	104	90	99	131	241	224	264	259	261
27	228	151	119	103	87	102	134	237	224	257	257	262
28	233	153	115	100	90	95	134	242	217	259	256	261
29	234	159	116	99	---	92	138	246	215	254	257	261
30	231	166	118	99	---	102	129	233	210	252	256	262
31	227	---	115	97	---	144	---	225	---	254	254	---
TOTAL	9235	5861	4293	3262	2658	2751	4151	6150	6814	7281	7661	7484
MEAN	298	195	138	105	94.9	88.7	138	198	227	235	247	249
MAX	445	224	164	125	104	144	156	246	273	270	267	265
MIN	227	151	115	97	86	78	99	139	191	212	222	230
AC-FT	18320	11630	8520	6470	5270	5460	8230	12200	13520	14440	15200	14840

CAL YR 1976 TOTAL 84597 MEAN 231 MAX 470 MIN 101 AC-FT 167800
WTR YR 1977 TOTAL 67601 MEAN 185 MAX 445 MIN 78 AC-FT 134100

13094000 SNAKE RIVER NEAR BUHL, ID

LOCATION.--Lat 42°39'58", long 114°42'41", in NW¼NW¼ sec.9, T.9 S., R.15 E., Twin Falls County, Hydrologic Unit 17040212, on left bank 2 mi (3.2 km) downstream from Niagara Springs, 3.8 mi (6.1 km) upstream from outlet of Clear Lakes, 6 mi (9.7 km) northeast of Buhl, and at mile 596.8 (960.3 km).

PERIOD OF RECORD.--December 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,951.9 ft (899.74 m) above mean sea level (stadia levels). Jan. 17, 1947, to July 12, 1965, at datum 1.00 ft (0.305 m) higher. Prior to Jan. 17, 1947, nonrecording gage at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir 116.8 mi (187.9 km) upstream (see sta 13076500). Diurnal fluctuation caused by hydroelectric plants upstream. No diversion except by small ranch ditches between this station and station at Milner, where at times practically entire flow is diverted during irrigation seasons. Diversions above station for irrigation of about 2,030,000 acres (822,000 hm²) of which about 542,000 acres (219,000 hm²) are by withdrawals from ground water and about 230,000 acres (93,000 hm²) are irrigated below station. In addition, about 26,000 acres (11,000 hm²) are irrigated above station by diversions from Salmon Falls Creek. Considerable water leaks into the Snake Plain aquifer upstream, some of which returns above the station.

AVERAGE DISCHARGE.--30 years, 5,146 ft³/s (146.0 m³/s), 3,728,000 acre-ft/yr (4,597 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s (671 m³/s) June 24, 1964 (gage height, 11.54 ft or 3.517 m, present datum); minimum, 1,580 ft³/s (44.7 m³/s) Mar. 28, 1963 (gage height, 0.83 ft or 0.253 m, present datum).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,400 ft³/s (323 m³/s) Dec. 2, 3 (gage height, 7.24 ft or 2.207 m); minimum, 1.750 ft³/s (49.6 m³/s) Apr. 17 (gage height, 1.15 ft or 0.351 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.2	1,780	4.0	4,760
1.5	1,980	6.0	8,500
2.0	2,380	8.0	13,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3980	5280	9940	5930	6340	5170	3520	1810	1920	1960	2160	2180
2	4070	5260	10900	5970	5990	5160	3600	1820	1890	1980	2180	2150
3	4200	5260	11100	6010	5800	5250	3490	1840	1810	2020	2150	2170
4	4180	5320	10600	5600	5790	5320	3170	1870	1830	2050	2150	2190
5	4640	5360	10200	6000	5640	5600	2570	1890	1850	2110	2120	2200
6	5260	5420	9800	6140	5670	5650	1980	1970	1810	2050	2160	2190
7	5770	5400	9310	5950	5570	5610	1830	1960	1820	2050	2160	2210
8	5930	5330	9190	5580	5500	5590	1810	1960	1830	2030	2160	2160
9	5970	5280	8720	5640	5160	5740	1800	1950	1830	2030	2110	2120
10	5650	5270	8150	5920	5050	5540	1820	1950	1900	2020	2100	2130
11	6060	5300	7650	5590	6170	4980	1830	1960	1950	2040	2080	2160
12	7240	5490	7120	5190	6060	5250	1810	1950	2000	2020	2080	2160
13	7390	5630	6780	5130	5500	5240	1790	1910	2070	1980	2140	2130
14	7170	5720	6440	5820	5430	5260	1930	1890	2050	2000	2120	2120
15	6800	5620	6310	5800	5490	5240	1900	1920	2000	2010	2110	2160
16	6610	5510	6340	5770	5320	4820	1830	2000	2030	2000	2060	2160
17	6070	5540	6290	5940	4760	4360	1800	2010	2010	1990	2040	2160
18	5610	5600	6130	6040	4160	3460	1820	2080	2040	1990	2050	2160
19	5950	5660	6120	5990	4070	2900	1820	2070	2050	1990	2060	2160
20	5750	5650	5990	5970	4130	2360	1840	2060	2100	1990	2070	2180
21	4920	5560	5880	5960	4140	2740	1820	2030	2050	2000	2080	2210
22	4860	5480	6110	6020	4070	3990	1800	2100	2010	2040	2080	2220
23	4840	5450	6240	6150	3580	3640	1800	2130	2020	2080	2080	2260
24	4840	5540	6040	6250	3080	3320	1800	2070	1990	2120	2080	2260
25	4860	6910	6050	6350	3670	3190	1800	2070	2010	2210	2110	2270
26	4810	6820	6050	6340	4650	3180	1820	2030	1970	2190	2180	2260
27	5010	6950	5930	6400	4910	3360	1800	1940	1990	2140	2210	2250
28	5250	7230	6030	6450	5180	3590	1780	1930	1960	2150	2210	2210
29	5260	8720	6060	6450	---	3090	1790	1920	1960	2120	2200	2210
30	5350	8910	5980	6460	---	2900	1780	1930	1970	2110	2190	2210
31	5310	---	5970	6500	---	2790	---	1910	---	2120	2230	---
TOTAL	169830	176490	229460	185310	141080	134330	61950	60930	58710	63590	65910	65610
MEAN	5478	5883	7402	5978	5039	4333	2065	1965	1957	2051	2126	2187
MAX	7390	8910	11100	6500	6340	5740	3600	2130	2100	2210	2230	2270
MIN	3980	5260	5880	5130	3080	2360	1780	1810	1810	1960	2040	2120
AC-FT	336900	350100	455100	367600	279800	266400	122900	120900	116500	126100	130700	130100

CAL YR 1976 TOTAL 3206530 MEAN 8761 MAX 20000 MIN 2040 AC-FT 6360000
WTR YR 1977 TOTAL 1413200 MEAN 3872 MAX 11100 MIN 1780 AC-FT 2803000

NOTE.--No gage-height record May 29 to June 17.

13095500 BOX CANYON SPRINGS NEAR WENDELL, ID

LOCATION .--Lat 42°42'29", long 114°48'35", in SW¼NW¼NW¼ sec.28, T.8 S., R.14 E., Gooding County, Hydrologic Unit 17040212, on left bank 150 ft (46 m) downstream from waterfall, at mile 0.5 (0.8 km), 0.8 mi (1.3 km) downstream from source, 7.5 mi (12.1 km) southwest of Wendell, and 588.8 mi (947.4 km) upstream from mouth of Snake River.

PERIOD OF RECORD.--April 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,950 ft or 899 m (from topographic map).

REMARKS.--Records good. No regulation or surface diversion above station. Discharge affected by variable surface waste from irrigation, which flows over rimrocks into springs above station.

AVERAGE DISCHARGE.--27 years, 407 ft^3/s (11.53 m^3/s), 294,900 acre-ft/yr (364 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 483 ft^3/s cfs m^3/s) Oct. 9, 14, 15, 18, 19, 1965; minimum daily, 346 ft^3/s (9.80 m^3/s) Jan. 10, 1962.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	421	409	395	383	375	369	363	373	367	375	387
2	429	421	409	395	383	375	367	363	373	365	375	387
3	429	419	409	397	381	375	367	365	373	367	375	387
4	429	419	409	395	381	373	365	367	371	367	375	387
5	429	419	407	393	381	373	367	365	369	367	377	387
6	429	419	407	393	381	373	367	365	369	367	377	385
7	427	419	407	393	379	373	365	365	369	369	381	385
8	429	419	407	393	379	373	367	365	369	369	383	385
9	429	419	407	393	379	373	367	365	371	369	383	383
10	429	419	405	393	379	373	367	367	371	369	383	383
11	429	419	405	393	379	371	367	367	371	369	383	385
12	429	419	403	391	379	371	365	367	371	367	383	385
13	429	417	403	391	379	373	365	367	373	369	383	385
14	429	417	403	391	377	371	367	367	375	367	383	385
15	429	415	401	389	377	369	367	369	375	367	383	387
16	427	415	401	389	377	371	365	369	375	367	381	387
17	427	415	401	387	377	371	365	369	375	367	383	387
18	427	415	401	387	377	371	365	369	375	367	383	387
19	425	415	401	387	377	373	365	369	373	367	383	389
20	425	413	399	387	377	369	363	367	373	367	383	389
21	425	413	399	387	377	369	363	367	371	367	381	389
22	427	413	399	387	377	369	363	367	371	367	381	389
23	425	413	399	385	377	369	363	369	369	369	381	391
24	425	413	399	385	375	369	361	369	369	371	383	391
25	425	413	397	385	375	369	361	371	369	371	383	391
26	425	413	397	385	375	369	363	371	369	371	385	393
27	423	411	397	385	375	369	361	371	369	373	385	393
28	423	411	395	383	375	371	361	373	367	375	385	393
29	423	411	397	383	---	369	361	373	367	375	389	393
30	421	409	395	383	---	369	363	375	365	375	391	393
31	421	---	395	383	---	369	---	373	---	373	389	---
TOTAL	13227	12474	12463	12063	10588	11507	10942	11409	11130	11437	11845	11636
MEAN	427	416	402	389	378	371	365	368	371	369	382	388
MAX	429	421	409	397	383	375	369	375	375	375	391	393
MIN	421	409	395	383	375	369	361	363	365	365	375	383
AC-FT	26240	24740	24720	23930	21000	22820	21700	22630	22080	22690	23490	23080

CAL YR 1976 TOTAL 142952 MEAN 391 MAX 432 MIN 359 AC-FT 283500
WTR YR 1977 TOTAL 140723 MEAN 386 MAX 429 MIN 361 AC-FT 279100

13105000 SALMON FALLS CREEK NEAR SAN JACINTO, NV

LOCATION.--Lat 41°56'40", long 114°41'15", in NE¼SW¼ sec.23, T.47 N., R.64 E., Elko County, Hydrologic Unit 17040213, on right bank in canyon, 630 ft (192 m) downstream from bridge on U.S. Highway 93, 550 ft (168 m) downstream from Shoshone Creek, and 5 mi (8 km) north of San Jacinto.

DRAINAGE AREA.--1,450 mi² (3,760 km²), approximately. Mean altitude, 6,350 ft (1,935 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1909 to June 1910 (gage heights only), June 1910 to September 1916, October 1918 to current year. Monthly discharge only for some periods published in WSP 1317. Prior to October 1910, published as Salmon Falls "River."

REVISED RECORDS.--WSP 1934: 1943(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,120 ft or 1,561 m (by barometer). Prior to June 6, 1910, nonrecording gage at nearby site at different datum. June 6, 1910, to Sept. 30, 1916, Oct. 1, 1918, to Aug. 28, 1964, water-stage recorder at site 35 ft (11 m) upstream at same datum.

REMARKS.--Records good. Diversions above station for irrigation of about 18,200 acres or 7,370 hm² (1966 determination). Salmon Dam of Salmon River Canal Co. is 15 mi (24 km) downstream (see sta 13106500).

AVERAGE DISCHARGE.--65 years (1911-16, 1919-77), 139 ft³/s (3.94 m³/s), 100,700 acre-ft/yr (124 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,430 ft³/s (68.8 m³/s) May 18, 1975 (gage height, 10.83 ft or 3.301 m); maximum gage height, 12.65 ft (3.856 m) Feb. 12, 1962; minimum, 2.6 ft³/s (0.074 m³/s) Sept. 4, 1961 (gage height, 3.37 ft or 1.027 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 269 ft³/s (7.62 m³/s) June 10 (gage height, 5.82 ft or 1.774 m); minimum daily, 18 ft³/s (0.510 m³/s) Aug. 5; minimum gage height, 4.07 ft (1.240 m) Aug. 5.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 29 to Sept. 30; stage-discharge relation affected by ice Nov. 28, Dec. 11-20, Jan. 26-29, 31, Feb. 1, 5, 6)

3.9	15	4.6	77
4.0	20	5.0	138
4.2	33	5.4	212
4.4	53	5.8	302

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	63	57	52	58	70	77	116	168	37	27	28
2	63	63	55	55	57	67	78	123	166	43	27	27
3	70	63	56	58	52	64	72	123	181	48	29	26
4	75	64	58	57	55	68	67	121	188	56	24	26
5	72	64	56	54	52	68	72	121	182	53	18	25
6	67	63	53	48	54	70	102	129	171	47	21	26
7	64	63	61	34	58	69	143	141	169	41	31	24
8	63	63	62	37	60	70	166	145	179	37	30	27
9	63	63	62	39	63	70	186	145	218	35	25	29
10	63	63	57	42	62	68	226	135	255	34	24	32
11	63	63	53	49	63	63	188	131	228	34	26	34
12	62	64	51	54	64	68	164	128	210	33	26	35
13	62	63	54	56	67	70	146	118	206	33	26	35
14	63	63	51	57	68	70	145	108	168	32	25	34
15	64	64	53	55	68	67	135	102	155	33	27	36
16	64	65	51	56	69	68	119	119	146	35	28	41
17	63	68	43	60	72	69	126	141	135	35	27	43
18	63	69	43	62	69	69	133	135	108	35	33	46
19	63	68	43	63	68	68	119	148	101	35	29	42
20	63	67	39	62	68	69	113	145	95	36	25	42
21	63	67	34	63	70	69	108	143	88	36	27	44
22	62	65	42	64	74	69	104	148	82	36	26	44
23	63	65	53	65	70	72	105	171	72	36	35	49
24	63	65	53	63	68	89	118	212	67	42	31	50
25	63	64	54	52	67	98	124	234	60	46	30	48
26	64	57	60	47	67	90	131	228	54	43	33	47
27	64	38	60	51	67	86	141	218	51	40	36	43
28	64	39	51	55	68	88	138	220	44	39	34	43
29	63	47	47	55	---	83	131	206	41	35	32	43
30	64	56	51	53	---	85	119	200	38	34	31	47
31	64	---	53	53	---	81	---	181	---	27	28	---
TOTAL	1985	1849	1616	1673	1798	2275	3796	4735	4026	1186	871	1116
MEAN	64.0	61.6	52.1	54.0	64.2	73.4	127	153	134	38.3	28.1	37.2
MAX	75	69	62	65	74	98	226	234	255	56	36	50
MIN	58	38	34	34	52	63	67	102	38	27	18	24
AC-FT	3940	3670	3210	3320	3570	4510	7530	9390	7990	2350	1730	2210

CAL YR 1976 TOTAL 62344 MEAN 170 MAX 855 MIN 28 AC-FT 123700
WTR YR 1977 TOTAL 26926 MEAN 73.8 MAX 255 MIN 18 AC-FT 53410

13105000 SALMON FALLS CREEK NEAR SAN JACINTO, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 07...	1030	62	277	--	8.0	5.0	--	96	0
DEC 18...	1015	36	295	--	-6.5	.5	0	--	--
JAN 29...	1015	51	257	--	-11.5	.0	0	--	--
MAR 07...	1330	69	234	--	4.0	6.5	0	--	--
APR 12...	0910	166	130	--	3.5	8.0	0	--	--
MAY 20...	1000	142	240	--	4.5	7.5	13	--	--
JUN 18...	0945	107	190	--	10.5	12.5	0	--	--
JUL 27...	0740	40	292	--	12.5	16.0	1	--	--
SEP 12...	1710	32	278	8.8	21.0	20.0	0	110	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 07...	29	5.8	14	23	.6	5.6	140	0	115
DEC 18...	--	--	--	--	--	--	--	--	--
JAN 29...	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--
JUL 27...	--	--	--	--	--	--	--	--	--
SEP 12...	31	6.9	17	24	.7	7.2	140	7	130

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 07...	14	7.8	.4	42	188	.26	31.5	.13	.04
DEC 18...	--	--	--	--	--	--	--	--	--
JAN 29...	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--
JUL 27...	--	--	--	--	--	--	--	--	--
SEP 12...	16	8.0	.5	42	205	.28	18.0	.07	.03

13106000 SALMON RIVER CANAL CO. CANAL NEAR ROGERSON, ID

LOCATION.--Lat 42°13'10", long 114°44'20", in sec.7, T.14 S., R.15 E., Twin Falls County, Hydrologic Unit 17040213, Bureau of Land Management lands, on left bank 0.5 mi (0.8 km) downstream from Salmon River Canal Co. reservoir and 7 mi (11.3 km) west of Rogerson.

PERIOD OF RECORD.--April 1937 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft (1,506 m) by barometer. Oct. 1, 1953, to Sept. 30, 1954, nonrecording gage at same site and datum.

REMARKS.--Records excellent. Canal diverts from Salmon River Canal Co. reservoir (see sta 13106500) for irrigation of land in Salmon River Canal Co. project.

AVERAGE DISCHARGE.--40 years, 106 ft³/s (3.00 m³/s), 76,800 acre-ft/yr (94.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 660 ft³/s (18.7 m³/s) July 21-24, 1944; no flow for long periods in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	308	.00	383	346	.00
2	.00	.00	.00	.00	.00	.00	.00	346	136	383	337	.00
3	.00	.00	.00	.00	.00	.00	.00	363	203	383	341	.00
4	.00	.00	.00	.00	.00	.00	.00	363	226	379	357	.00
5	.00	.00	.00	.00	.00	.00	.00	365	263	355	359	.00
6	.00	.00	.00	.00	.00	.00	.00	344	301	351	333	.00
7	.00	.00	.00	.00	.00	.00	.00	332	376	337	319	.00
8	.00	.00	.00	.00	.00	.00	.00	281	389	347	278	.00
9	.00	.00	.00	.00	.00	.00	.00	268	397	367	281	.00
10	.00	.00	.00	.00	.00	.00	.00	239	380	383	286	.00
11	.00	.00	.00	.00	.00	.00	.00	251	351	431	295	.00
12	.00	.00	.00	.00	.00	.00	.00	238	342	442	328	.00
13	.00	.00	.00	.00	.00	.00	.00	232	308	477	330	.00
14	.00	.00	.00	.00	.00	.00	.00	214	316	475	333	.00
15	.00	.00	.00	.00	.00	.00	.00	214	280	477	340	.00
16	.00	.00	.00	.00	.00	.00	.00	223	271	467	354	.00
17	.00	.00	.00	.00	.00	.00	.00	220	238	450	360	.00
18	.00	.00	.00	.00	.00	.00	.00	202	254	465	364	.00
19	.00	.00	.00	.00	.00	.00	.00	193	272	478	362	.00
20	.00	.00	.00	.00	.00	.00	.00	166	275	477	356	.00
21	.00	.00	.00	.00	.00	.00	.00	177	285	467	356	.00
22	.00	.00	.00	.00	.00	.00	.00	192	290	459	363	.00
23	.00	.00	.00	.00	.00	.00	.00	174	312	437	363	.00
24	.00	.00	.00	.00	.00	.00	.00	171	324	429	373	.00
25	.00	.00	.00	.00	.00	.00	.00	131	345	410	370	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	344	402	358	.00
27	.00	.00	.00	.00	.00	.00	262	.00	366	383	356	.00
28	.00	.00	.00	.00	.00	.00	288	.00	370	374	331	.00
29	.00	.00	.00	.00	---	.00	282	.00	379	343	240	.00
30	.00	.00	.00	.00	---	.00	313	.00	379	342	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	349	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	1145.00	6207.00	8972.00	12702	9769.00	.00
MEAN	.000	.000	.000	.000	.000	.000	38.2	200	299	410	315	.000
MAX	.00	.00	.00	.00	.00	.00	313	365	397	478	373	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	337	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	2270	12310	17800	25190	19380	.00

CAL YR 1976 TOTAL 47451.00 MEAN 130 MAX 544 MIN .00 AC-FT 94120
WTR YR 1977 TOTAL 38795.00 MEAN 106 MAX 478 MIN .00 AC-FT 76950

13106500 SALMON RIVER CANAL CO. RESERVOIR NEAR ROGERSON, ID

LOCATION.--Lat 42°12'40", long 114°44'00", in NE¼ sec.18, T.14 S., R.15 E., Twin Falls County, Hydrologic Unit 17040213, Bureau of Land Management lands, at Salmon Falls Dam on Salmon Falls Creek, 7.5 mi (12.1 km) west of Rogerson, and at mile 46.0 (74.0 km).

DRAINAGE AREA.--1,610 mi² (4,170 km²), approximately.

PERIOD OF RECORD.--January 1922 to current year.

GAGE.--Nonrecording gage. Datum of gage is 4,945.8 ft (1,507.5 m) above mean sea level.

REMARKS.--Reservoir is formed by gravity-section concrete-arch dam completed in 1911; storage began in 1910. Usable capacity, 182,650 acre-ft (225 hm³) between gage heights 0.0 (bottom of outlet tunnel) and 80.0 ft (24.4 m) maximum operating level. Dead storage, 48,000 acre-ft (59.2 hm³). Water is used for irrigation of lands in Salmon River Canal Co. project. Figures given herein represent usable contents.

COOPERATION.--Gage readings and capacity table furnished by Salmon River Canal Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 166,000 acre-ft (205 hm³) June 24, 1975 (gage height, 75.00 ft or 22.860 m); minimum observed, 125 acre-ft (0.154 hm³) Sept. 21 to Oct. 5, 1934 (gage height, 0.1 ft or 0.03 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 86,600 acre-ft (107 hm³) Apr. 27 (gage height, 47.15 ft or 14.371 m); minimum observed, 23,400 acre-ft (28.9 hm³) Aug. 30 to Sept. 19 (gage height, 16.10 ft or 4.907 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

16.0	23,200	40.0	69,800
20.0	30,000	50.0	93,800
30.0	48,800		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79200	79500	80100	80400	81000	82000	83200	85000	79400	67000	42500	23400
2	79200	79500	80100	80400	81000	82000	83400	84400	79600	66200	41900	23400
3	79200	79600	80100	80400	81000	82000	83400	84000	79500	65600	41200	23400
4	79200	79600	80100	80400	81100	82200	83500	83400	79400	65300	40200	23400
5	79200	79600	80100	80400	81100	82200	83500	82800	79200	64400	39800	23400
6	79200	79600	80200	80400	81100	82300	83500	82300	78900	63800	39100	23400
7	79200	79600	80200	80500	81100	82400	83600	81900	78500	63100	38500	23400
8	79300	79600	80200	80500	81200	82400	83600	81400	78200	62500	37600	23400
9	79300	79800	80200	80500	81200	82400	83600	81200	77700	61900	37200	23400
10	79300	79800	80200	80500	81200	82400	84200	80000	77200	61000	36600	23400
11	79400	79800	80200	80500	81200	82400	84600	80300	76900	60200	36000	23400
12	79400	79800	80200	80500	81200	82400	84600	80100	76600	59500	35400	23400
13	79400	79800	80200	80500	81300	82400	84900	79500	76400	59100	34800	23400
14	79400	79800	80200	80500	81300	82500	85000	79500	75900	57600	34100	23400
15	79400	79800	80200	80500	81300	82500	85300	79300	75600	56500	33400	23400
16	79400	79800	80200	80500	81400	82500	85500	78900	75500	55700	32700	23400
17	79400	79800	80400	80500	81400	82500	85500	78500	75500	54700	32600	23400
18	79400	80000	80400	80500	81600	82600	85500	78300	74700	53800	31200	23400
19	79400	80000	80400	80500	81600	82600	85800	78200	74300	52600	30600	23400
20	79400	80000	80400	80500	81600	82600	85900	78000	73900	52000	29600	23500
21	79400	80000	80400	80500	81700	82600	86000	77900	73400	51000	29200	23500
22	79400	80100	80400	80700	81700	82600	86100	77800	73000	50200	28600	23500
23	79400	80100	80400	80700	81600	82800	86200	77600	72500	49300	27700	23500
24	79400	80100	80400	80700	81600	82900	86400	77600	71900	48500	27600	23500
25	79400	80100	80400	80700	81900	82900	86500	77000	71300	47600	26300	23600
26	79400	80100	80400	80700	81500	83000	86500	77700	70800	47000	25700	23700
27	79400	80100	80400	80700	81900	83000	86600	78100	70100	46200	24900	23800
28	79400	80100	80400	81000	82000	83000	86200	78500	69300	45400	24200	23900
29	79400	80100	80400	81000	---	83000	85800	78700	68500	44500	23600	24000
30	79400	80100	80400	81000	---	83200	85400	78900	67800	43900	23400	24000
31	79400	---	80400	81000	---	83200	---	79300	---	43200	23400	---
MAX	79400	80100	80400	81000	82000	83200	86600	85000	79600	67000	42500	24000
MIN	79200	79500	80100	80400	81000	82000	83200	77000	67800	43200	23400	23400
(†)	44.15	44.45	44.55	44.80	45.25	45.75	46.65	44.10	39.10	27.20	16.10	16.50
(‡)	+200	+700	+300	+600	+1000	+1200	+2200	-6100	-11500	-24600	-19800	+600

CAL YR 1976............ ‡ -28600
WTR YR 1977............ ‡ -55200

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

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13108150 SALMON FALLS CREEK NEAR HAGERMAN, ID

LOCATION.--Lat 42°41'47", long 114°51'15", in SW¼SE¼SE¼ sec.30, T.8 S., R.14 E., Twin Falls County, Hydrologic Unit 17040213, on left bank 25 ft (8 m) upstream from U.S. Highway 30, at mile 1.9 (3.1 km), and 8.5 mi (13.7 km) south of Hagerman.

DRAINAGE AREA.--2,120 mi² (5,490 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,900 ft or 880 m (from topographic map).

REMARKS.--Records good. Flow completely regulated by Salmon River Canal Co. reservoir 44 mi (71 km) upstream (see sta 13106500). Entire available supply is diverted above the dam for irrigation. Flow below the dam is derived from leakage past the dam and return flow from adjacent land. Several diversions by pumping from the left bank below the dam are used for irrigation of land most of which is outside the basin. Flow past gage is partially regulated during irrigation season by small diversion dam 0.9 mi (1.4 km) upstream.

AVERAGE DISCHARGE.--7 years, 168 ft³/s (4.76 m³/s), 121,700 acre-ft/yr (150 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft³/s (38.5 m³/s) Jan. 19, 1972 (gage height, 9.04 ft or 2.755 m); minimum, 5.8 ft³/s (0.16 m³/s) July 9, 1977 (gage height, 2.51 ft or 0.765 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 286 ft³/s (8.10 m³/s) Oct. 17 (gage height, 4.99 ft or 1.520 m); minimum, 5.8 ft³/s (0.16 m³/s) July 9 (gage height, 2.51 ft or 0.765 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-22, May 27 to July 2)

2.7	11	3.6	81
2.8	14	4.0	138
3.0	23	4.5	218
3.3	46	5.0	306

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	231	198	177	171	162	161	47	75	19	54	108
2	250	231	198	177	175	161	153	67	56	20	52	113
3	275	230	191	182	175	159	154	71	49	24	54	112
4	273	223	191	182	172	155	153	81	32	22	56	127
5	265	223	193	174	172	153	115	88	26	25	77	136
6	257	223	193	175	172	150	99	111	28	28	66	142
7	254	223	191	172	174	148	93	132	32	26	59	134
8	252	219	191	167	174	153	101	141	39	24	88	128
9	252	219	193	166	175	159	108	135	63	15	91	101
10	263	221	196	171	177	158	86	123	72	13	74	92
11	261	219	198	171	177	155	90	117	79	16	59	85
12	256	221	199	172	175	153	79	121	91	17	49	88
13	254	224	198	175	178	151	79	112	105	18	43	88
14	249	231	199	180	178	148	83	95	121	16	39	85
15	242	233	199	182	175	144	86	90	135	18	42	88
16	240	235	201	174	177	158	82	101	140	18	41	106
17	256	233	199	177	178	161	73	95	115	16	35	152
18	254	230	196	177	175	130	84	97	126	13	31	165
19	243	230	191	175	175	159	78	107	99	13	32	169
20	249	230	193	175	174	159	97	104	101	16	36	169
21	254	230	190	175	174	158	94	101	90	19	37	184
22	252	230	185	174	174	151	91	87	63	21	36	195
23	250	228	183	172	166	150	73	109	46	25	33	204
24	249	233	187	174	156	167	58	147	39	38	32	218
25	250	233	183	174	159	161	56	169	23	64	41	212
26	250	223	182	174	167	161	55	178	21	72	74	212
27	257	216	182	161	164	166	57	180	18	64	92	207
28	243	187	187	164	162	190	63	185	18	56	95	199
29	238	182	185	167	---	177	52	174	17	47	97	194
30	231	190	182	167	---	183	44	145	23	47	102	191
31	233	---	179	171	---	171	---	109	---	51	114	---
TOTAL	7802	6681	5935	5384	4823	4911	2692	3619	1942	881	1829	4404
MEAN	252	223	191	174	172	158	89.7	117	64.7	28.4	59.0	147
MAX	275	235	201	182	178	190	161	185	140	72	114	218
MIN	231	182	179	161	158	130	44	47	17	13	31	85
AC-FT	15480	13250	11770	10680	9570	9740	5340	7180	3850	1750	3630	8740

CAL YR 1976 TOTAL 63330 MEAN 173 MAX 324 MIN 14 AC-FT 125600
WTR YR 1977 TOTAL 50903 MEAN 139 MAX 275 MIN 13 AC-FT 101000

13108150 SALMON FALLS CREEK NEAR HAGERMAN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-67, 1970-72, 1974 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1968-69, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 08...	1630	219	731	8.2	9.0	8.0	0	270	90
DEC 19...	1415	134	588	--	.0	4.0	0	--	--
JAN 29...	1415	17	526	--	-7.0	2.5	--	--	--
MAR 05...	0930	144	929	--	1.0	6.5	0	--	--
APR 17...	1030	67	713	--	6.5	9.5	0	--	--
MAY 16...	1445	111	635	--	9.5	10.5	2	--	--
JUN 15...	1430	140	558	--	21.0	14.5	0	--	--
JUL 29...	1240	45	780	--	25.0	20.0	0	--	--
SEP 12...	1150	87	884	8.3	22.5	16.0	0	330	85

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 08...	66	25	54	30	1.4	7.7	220	0	180
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 29...	--	--	--	--	--	--	--	--	--
MAR 05...	--	--	--	--	--	--	--	--	--
APR 17...	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--
JUN 15...	--	--	--	--	--	--	--	--	--
JUL 29...	--	--	--	--	--	--	--	--	--
SEP 12...	80	32	69	30	1.7	9.1	300	0	250

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 08...	150	42	.7	40	504	.69	298	2.3	.05
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 29...	--	--	--	--	--	--	--	--	--
MAR 05...	--	--	--	--	--	--	--	--	--
APR 17...	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--
JUN 15...	--	--	--	--	--	--	--	--	--
JUL 29...	--	--	--	--	--	--	--	--	--
SEP 12...	160	54	1.0	51	617	.84	146	2.9	.06

13112000 CAMAS CREEK AT CAMAS, ID

LOCATION.--Lat 44°00'10", long 112°13'12", in SE¼SE¼ sec.21, T.8 N., R.36 E., Jefferson County, Hydrologic Unit 17040214, on left bank 150 ft (46 m) upstream from county road bridge, 250 ft (76 m) upstream from Union Pacific Railroad bridge at Camas, and about 1.1 mi (1.8 km) upstream from Beaver Creek.

DRAINAGE AREA.--400 mi² (1,040 km²), approximately. Mean altitude, 6, ft (1,966 m).

PERIOD OF RECORD.--April 1925 to October 1970, April 1971 to current ye

REVISED RECORDS.--WSP 813: 1935. WSP 1123: 1947. WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,806.84 ft (1,465.125 m) above mean sea level (unadjusted). Prior to Aug. 21, 1925, nonrecording gage at site 0.1 mi (0.2 km) downstream at different datum. Aug. 21, 1925, to Mar. 25, 1927, nonrecording gage and Mar. 26, 1927, to Sept. 14, 1938, water-stage recorder at site 250 ft (76 m) upstream at datum 2.01 ft (0.613 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 8,100 acres or 3,280 hm² (1966 determination). No water diverted into flood channel about 25 mi (40 km) upstream.

COOPERATION.--Water-stage recorder inspected by employees of Water District 31.

AVERAGE DISCHARGE.--50 years (1927-70, 1972-77), 33.7 ft³/s (0.954 m³/s), 24,420 acre-ft/yr (30.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,220 ft³/s (34.6 m³/s) May 2 or 3, 1952 (gage height, 6.53 ft or 1.990 m); from rating curve extended above 510 ft³/s (14.4 m³/s); no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 427 ft³/s (12.1 m³/s) Apr. 10 (gage height, 4.44 ft or 1.353 m); no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	11	.20	.10	.00	.00	.00	.00	12	.00	.00	.00
2	.00	11	.20	.10	.00	.00	.00	.00	2.3	.00	.00	.00
3	1.8	11	.20	.10	.00	.00	.00	.00	.00	.00	.00	.00
4	5.5	12	.20	.10	.00	.00	.00	.00	.00	.00	.00	.00
5	21	11	.10	.10	.00	.00	.00	.00	.00	.00	.00	.00
6	15	10	.10	.10	.00	.00	.20	.00	.00	.00	.00	.00
7	13	10	.10	.10	.00	.00	1.0	.00	.00	.00	.00	.00
8	13	10	.10	.10	.00	.00	40	.58	.00	.00	.00	.00
9	11	8.6	.10	.10	.00	.00	150	6.6	.00	.00	.00	.00
10	11	9.8	.10	.10	.00	.00	292	11	.00	.00	.00	.00
11	10	10	.10	.00	.00	.00	162	.52	6.1	.00	.00	.00
12	8.0	9.2	.10	.00	.00	.00	57	1.5	45	.00	.00	.00
13	8.2	6.9	.10	.00	.00	.00	32	4.0	33	.00	.00	.00
14	7.4	.66	.10	.00	.00	.00	24	.00	10	.00	.00	.00
15	6.7	7.2	.10	.00	.00	.00	32	.00	1.2	.00	.00	.00
16	7.3	11	.10	.00	.00	.00	21	.00	.00	.00	.00	.00
17	7.2	8.1	.10	.00	.00	.00	10	.00	.00	.00	.00	.00
18	8.2	11	.10	.00	.00	.00	20	.00	.00	.00	.00	.00
19	7.8	10	.10	.00	.00	.00	19	.00	.00	.00	.00	.00
20	6.5	7.0	.10	.00	.00	.00	9.9	.00	.00	.00	.00	.00
21	7.4	8.0	.10	.00	.00	.00	6.8	.00	.00	.00	.00	.00
22	8.8	11	.10	.00	.00	.00	3.4	.00	.00	.00	.00	.00
23	9.1	10	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	9.7	11	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	10	15	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	9.6	.60	.20	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	11	.30	.18	.00	.00	.00	.00	42	.00	.00	.00	.00
28	9.8	.20	.15	.00	.00	.00	.00	58	.00	.00	.00	.00
29	8.6	.20	.10	.00	---	.00	.00	64	.00	.00	.00	.00
30	9.8	.20	.10	.00	---	.00	.00	44	.00	.00	.00	.00
31	11	---	.10	.00	---	.00	---	21	---	.00	.00	---
TOTAL	273.79	241.96	3.78	1.00	.00	.00	885.30	253.20	109.60	.00	.00	.00
MEAN	8.83	8.07	.12	.032	.000	.000	29.5	8.17	3.65	.000	.000	.000
MAX	21	15	.20	.10	.00	.00	292	64	45	.00	.00	.00
MIN	.00	.20	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	543	480	7.5	2.0	.00	.00	1760	502	217	.00	.00	.00

CAL YR 1976 TOTAL 15493.79 MEAN 42.3 MAX 699 MIN .00 AC-FT 30730
WTR YR 1977 TOTAL 1768.63 MEAN 4.85 MAX 292 MIN .00 AC-FT 3510

13112000 CAMAS CREEK AT CAMAS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72 (partial-record station), 1974-75, 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1968-69.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 06...	1545	14	146	8.3	16.0	12.0	0	71	10
NOV 17...	1140	8.0	142	--	7.0	.5	2	--	--
DEC 27...	1050	.18	277	--	3.0	.0	0	--	--
APR 08...	1047	4.0	103	--	14.0	.0	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 06...	21	4.6	4.1	11	.2	3.0	75	0	62
NOV 17...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 06...	3.9	3.4	.2	23	100	.14	3.78	.03	.08
NOV 17...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--	--

13113000 BEAVER CREEK AT SPENCER, ID

LOCATION.--Lat 44°21'20", long 112°10'45", in NW¼SE¼ sec.23, T.12 N., R.36 E., Clark County, Hydrologic Unit 17040214, on left bank 62 ft (19 m) upstream from State Highway 22, 0.4 mi (0.6 km) southeast of Spencer Post Office, and 2.5 mi (4.0 km) upstream from Rattlesnake Creek.

DRAINAGE AREA.--120 mi² (310 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1938 to September 1940 (published as "near Spencer"), October 1940 to November 1952, October 1968 to current year (no winter records 1942-52).

GAGE.--Water-stage recorder. Altitude of gage is 5,850 ft or 1,783 m (by barometer). December 1938 to November 1952 nonrecording gage. Prior to October 1940, at site 1.6 mi (2.6 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 850 acres or 340 hm² (1966 determination).

AVERAGE DISCHARGE.--11 years (1940-41, 1969-77), 45.7 ft³/s (1.294 m³/s), 33,110 acre-ft/yr (40.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,,190 ft³/s (33.7 m³/s) May 18, 1975 (gage height, 9.84 ft or 2.999 m), from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of computation of peak flow through culvert; minimum observed, 0.5 ft³/s (0.014 m³/s) Jan. 26, 1942, Feb. 22, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 150 ft³/s (4.25 m³/s) Apr. 8; maximum gage height, 6.75 ft (2.057 m) Apr. 6 (backwater from ice); minimum discharge, 4.0 ft³/s (0.113 m³/s) July 19, 20 (gage height, 2.35 ft or 0.716 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	21	14	7.5	6.5	7.5	10	22	36	17	1.4	16
2	20	22	14	8.0	6.5	7.5	11	26	34	16	.80	13
3	41	23	13	8.5	6.5	7.0	17	24	31	17	.80	10
4	29	23	12	8.5	6.8	7.5	25	23	29	22	2.1	9.0
5	25	22	11	8.0	6.8	8.0	60	27	25	26	3.3	7.9
6	25	22	11	7.5	7.0	9.0	100	31	23	22	35	6.8
7	23	21	11	7.0	7.0	10	130	75	25	17	23	5.8
8	23	22	12	6.5	7.0	9.0	150	65	24	15	22	4.9
9	23	23	11	6.0	7.2	8.5	100	43	41	14	14	4.3
10	23	22	10	5.5	7.3	8.0	56	41	79	12	11	5.5
11	22	22	9.6	5.0	7.6	8.0	43	44	65	12	9.3	5.2
12	22	19	9.5	6.0	8.0	8.0	41	34	42	10	8.8	5.0
13	22	15	11	6.5	8.5	8.0	36	29	38	8.7	8.2	5.0
14	22	14	12	7.0	8.5	7.5	34	28	35	8.5	7.2	4.8
15	22	14	12	7.5	8.0	7.5	28	41	34	8.1	6.8	17
16	22	15	13	4.0	8.0	7.5	41	41	29	8.3	6.7	20
17	22	16	13	8.3	9.5	7.5	38	51	36	8.3	5.3	21
18	27	17	12	8.6	10	7.0	27	55	28	6.4	4.9	22
19	27	17	10	9.0	11	7.0	31	77	24	5.8	5.9	17
20	25	15	8.4	9.0	11	7.0	27	74	33	5.5	5.3	16
21	21	14	7.5	9.5	10	7.5	27	55	47	7.4	4.6	27
22	21	14	7.2	9.0	9.0	8.0	28	43	32	12	5.9	26
23	22	15	7.2	8.5	8.0	9.0	30	45	25	12	6.5	23
24	21	16	7.3	8.0	7.0	9.5	31	47	21	16	5.2	20
25	22	14	7.7	7.5	7.0	10	29	106	19	77	4.9	20
26	21	13	8.0	7.0	7.0	10	28	86	17	26	16	18
27	21	11	8.7	6.5	7.0	9.5	27	84	18	15	24	16
28	27	11	9.0	6.0	8.0	8.0	24	69	20	9.2	16	14
29	21	12	8.5	6.0	---	8.0	22	53	19	4.9	13	14
30	22	13	8.0	6.0	---	9.5	22	46	18	3.3	12	35
31	21	---	7.5	6.0	---	10	---	40	---	2.2	19	---
TOTAL	724	518	316.1	223.9	221.7	256.0	1273	1525	947	444.6	308.90	429.2
MEAN	23.4	17.3	10.2	7.22	7.92	8.26	42.4	49.2	31.6	14.3	9.96	14.3
MAX	41	23	14	9.5	11	10	150	106	79	77	35	35
MIN	19	11	7.2	4.0	6.5	7.0	10	22	17	2.2	.80	4.3
AC-FT	1440	1030	627	444	440	508	2520	3020	1880	882	613	851

CAL YR 1976 TOTAL 13479.00 MEAN 36.8 MAX 310 MIN 6.9 AC-FT 26740
WTR YR 1977 TOTAL 7187.40 MEAN 19.7 MAX 150 MIN .80 AC-FT 14260

13113000 BEAVER CREEK NEAR SPENCER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT									
06...	1150	26	414	12.0	5.5	--	--	--	--
NOV									
16...	1230	15	41	7.0	.5	0	--	--	--
DEC									
27...	0805	7.7	328	-11.0	.0	1	--	--	--
FEB									
10...	0940	7.3	403	-7.0	.0	1	--	--	--
MAY									
05...	0845	28	423	-1.0	2.0	2	--	--	--
JUN									
21...	1230	45	460	19.5	12.5	0	--	--	--
JUL									
27...	1130	16	538	20.0	16.5	0	--	--	--
SEP									
08...	1000	5.0	324	12.5	12.5	1	210	0	59

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
06...	--	--	--	--	--	--	--	--	--
NOV									
16...	--	--	--	--	--	--	--	--	--
DEC									
27...	--	--	--	--	--	--	--	--	--
FEB									
10...	--	--	--	--	--	--	--	--	--
MAY									
05...	--	--	--	--	--	--	--	--	--
JUN									
21...	--	--	--	--	--	--	--	--	--
JUL									
27...	--	--	--	--	--	--	--	--	--
SEP									
08...	15	8.4	8	.3	1.6	260	0	213	8.6

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT								
06...	--	--	--	--	--	--	--	--
NOV								
16...	--	--	--	--	--	--	--	--
DEC								
27...	--	--	--	--	--	--	--	--
FEB								
10...	--	--	--	--	--	--	--	--
MAY								
05...	--	--	--	--	--	--	--	--
JUN								
21...	--	--	--	--	--	--	--	--
JUL								
27...	--	--	--	--	--	--	--	--
SEP								
08...	5.1	.3	20	246	.33	3.34	.07	.07

13114000 BEAVER CREEK AT CAMAS, ID

LOCATION.--Lat 44°00'27", long 112°13'25", in NW¼SW¼ sec.21, T.8 N., R.36 E., Jefferson County, Hydrologic Unit 17040214, on right bank 0.1 mi (0.2 km) west of railroad crossing at Camas and about 1.4 mi (2.3 km) upstream from mouth.

DRAINAGE AREA.--510 mi² (1,320 km²), approximately. Mean altitude, 6,190 ft (1,887 m).

PERIOD OF RECORD.--April 1921 to current year (flood season only 1971-77).

GAGE.--Water-stage recorder. Altitude of gage is 4,790 ft or 1,460 m (by barometer). Prior to Dec. 22, 1949, nonrecording gages at nearby sites at present datum.

REMARKS.--Records good. Flow affected by irrigation diversions above Dubois, 14 mi (22.5 km) above station, and by heavy channel losses below Dubois. Diversions above station for irrigation of about 5,800 acres or 2,350 hm² (1966 determination).

COOPERATION.--Occasional inspections of recorder by Watermaster of Water District 31.

AVERAGE DISCHARGE.--49 years (1922-70), 6.00 ft³/s (0.170 m³/s), 4,350 acre-ft/yr (5.36 hm³/yr);

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 322 ft³/s (9.12 m³/s) May 18, 1975 (gage height, 4.52 ft or 1.378 m); no flow for long periods in each year; no flow for entire water years 1929, 1931-37, 1940, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 82 ft³/s (2.32 m³/s) Apr. 9 (gage height, 2.89 ft or 0.881 m); no flow for long periods.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	.00					
2						---	.00					
3						---	.00					
4						---	.00					
5						---	.00					
6						---	.00					
7						---	.00					
8						---	39					
9						---	66					
10						---	52					
11						---	26					
12						---	20					
13						---	5.5					
14						---	.57					
15						---	.00					
16						---	.00					
17						---	.00					
18						---	.00					
19						---	.00					
20						---	.00					
21						---	.00					
22						---	.00					
23						.00	.00					
24						.00	.00					
25						.00	.00					
26						.00	.00					
27						.00	.00					
28						.00	.00					
29						.00	.00					
30						.00	.00					
31						.00	---					
TOTAL	---	---	---	---	---	---	209.07	---	---	---	---	---
MEAN	---	---	---	---	---	---	6.97	---	---	---	---	---
MAX	---	---	---	---	---	---	66	---	---	---	---	---
MIN	---	---	---	---	---	---	.00	---	---	---	---	---
AC-FT	---	---	---	---	---	---	415	---	---	---	---	---

13115000 MUD LAKE NEAR TERRETON, ID

LOCATION.--Lat 43°53'30", long 112°21'30", in NE¼SE¼ sec.32, T.7 N., R.35 E., Jefferson County, Hydrologic Unit 17040215, 670 ft (204 m) north of mouth of Camas Creek, 4.4 mi (7.1 km) northeast of First Owsley pumphouse, and 5.5 mi (8.8 km) northeast of Terreton.

DRAINAGE AREA.--1,130 mi^2 (2,930 km^2), approximately, not including Medicine Lodge Creek.

PERIOD OF RECORD.--April 1921 to current year.

REVISED RECORDS.--WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,774.99 ft (1,455.417 m) above mean sea level, unadjusted. Prior to Oct. 31, 1931, nonrecording gages at or near pumphouse (now used as a supplementary gage) at same datum. Oct. 31, 1931, to Sept. 30, 1954, water-stage recorder at site 2.7 mi (4.3 km) southwest and 2 mi (3.2 km) north of First Owsley pumphouse at same datum.

REMARKS.--Mud Lake is a perched body of water confined by earth dikes and fed by ground water and surface tributaries augmented by well flows and surface inflow from North Lake. Water for irrigation is diverted from lake by pumping. During low-lake stages, inflow from Camas Creek may be bypassed through Camas Creek diversion canal directly to lake outlet channel leading to First Owsley pumping plant. Bypass was not used during 1977. Other irrigation diversions are made by various means from adjacent lakes and wells and Camas Creek above lake. Area of Mud Lake is varied from time to time by changes in dikes. Figures given herein represent contents above gage height -4.0 ft (-1.22 m). Capacity table prepared from surveys made by Geological Survey and adjusted for changes in dikes. High winds are frequent, and stage at recorder during wind does not usually represent the mean for the lake. For complete description of Mud Lake region, see WSP 818.

COOPERATION.--Water-stage recorder inspected by employees of Water District 31.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 61,660 acre-ft (76.0 hm^3) May 5, 1923 (gage height, 9.20 ft or 2.804 m); practically no contents Oct. 1 to Nov. 15, 1937, due to bypassing Camas Creek (see Remarks).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,100 acre-ft (50.7 hm^2) Mar. 31 (gage height, 8 47 ft or 2.582 m); minimum daily contents, 6,820 acre-ft (8.41 hm^3) Oct. 27.

Capacity table (elevation, in feet, and contents, in acre-feet)

1.0	5,460	4.0	15,800	8.0	37,900
2.0	8,150	6.0	25,700	9.0	44,700
3.0	11,600				

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8180	6960	10800	15600	21000	24700	40500	36600	38300	28700	15900	15400
2	8340	6980	11000	15800	21200	25300	40300	36200	38000	28600	15700	15700
3	8530	7090	11100	16300	21300	26000	40100	35800	38200	28500	15400	15900
4	8280	7200	11300	16400	21400	26600	40000	34900	38400	28800	15100	16100
5	8280	7350	11400	16600	21600	27300	39800	34300	38500	28900	15000	16400
6	8180	7490	11600	16800	21700	28000	39800	33900	38200	28800	15100	16500
7	8240	7610	11700	17000	21900	28800	39700	34100	37300	28800	15500	16500
8	8280	7700	11900	17200	22000	29400	39500	34100	36600	28800	15300	16000
9	8240	7870	12000	17300	22100	30000	39500	34000	35400	28800	15400	15800
10	8280	7940	12200	17500	22400	30700	39400	33800	34800	28500	15500	15500
11	8180	8090	12400	17700	22100	31200	39500	33600	34500	28100	15600	15400
12	8150	8180	12500	17800	22300	31800	39300	33400	34100	27900	15600	14800
13	8090	8370	12700	17900	22500	32500	39500	33300	33800	27500	15600	14500
14	7730	8560	12900	18000	22500	33100	39200	33100	33200	27100	15500	14200
15	7730	8690	13000	18100	22600	33800	39100	33100	32800	26500	15300	13900
16	7750	8860	13200	18300	22700	34300	39000	33200	31700	25700	15200	13600
17	7490	9020	13400	18600	22800	35000	39300	33400	31600	25100	15200	13300
18	7580	9150	13600	18700	23000	35500	39600	33500	30700	24400	15000	12900
19	7460	9280	13700	18800	23100	36000	39700	33900	30200	23900	14900	12700
20	7370	9350	13900	18900	23300	36200	39700	34400	29700	22600	14900	12300
21	7320	9520	14100	19000	23500	36400	39600	34800	29300	21800	14700	11900
22	7290	9620	14200	19200	23600	36700	39500	35100	29000	20900	14600	11600
23	7290	9720	14500	19400	23800	37300	39500	35600	28800	20200	14400	11300
24	7290	9900	14500	19500	23900	37900	39300	36100	28800	19400	14600	11000
25	7180	9900	14700	19700	24000	38400	39100	36600	28800	18400	14400	10700
26	6980	10100	14800	19900	24200	39100	39000	37000	28900	17800	14400	10400
27	6820	10300	15000	20000	24300	39600	38400	37300	28900	17400	14600	10100
28	6850	10400	15100	20200	24400	39900	37900	37700	29000	17300	15000	9790
29	6870	10600	15300	20400	---	40500	37400	38000	28700	16800	15500	9660
30	6900	10700	15500	20500	---	40800	37000	38100	28700	16400	15200	9590
31	6930	---	15500	20800	---	40900	---	38500	---	16200	15200	---
MAX	8530	10700	15500	20800	24400	40900	40500	38500	38500	28900	15900	16500
MIN	6820	6960	10800	15600	21000	24700	37000	33100	28700	16200	14400	9590
(†)	---	2.75	3.94	5.05	5.76	8.44	7.85	8.09	6.51	4.09	3.87	2.44
(‡)	-1310	+3770	+4800	+5300	+3600	+16500	-3900	+1500	-9800	-12500	-1000	-5610

CAL YR 1976............. ‡ -1700
WTR YR 1977............. ‡ +1350

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

13115000 MUD LAKE NEAR TERRETON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72 (partial-record station), 1974-75, 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1968-72.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	RESERVOIR STORAGE (AC-FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	WEATHER (WMO CODE NUMBER)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
OCT									
05...	1405	8280	213	8.7	15.0	11.0	1	100	1
FEB									
14...	1000	22500	295	--	-3.0	.0	3	--	--
JUN									
30...	1135	28700	223	--	--	22.0	--	84	0

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY, TOTAL (MG/L AS CACO3)
OCT									
05...	26	8.7	10	17	.4	2.3	100	10	99
FEB									
14...	--	--	--	--	--	--	--	--	--
JUN									
30...	19	8.9	11	22	.5	2.0	110	0	90

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT								
05...	8.2	8.5	.4	25	149	.20	.12	.01
FEB								
14...	--	--	--	--	--	--	--	--
JUN								
30...	4.4	6.9	.5	19	126	.17	--	.02

13117020 BIRCH CREEK AT BLUE DOME INN, NR RENO, ID

LOCATION.--Lat 44°09'14", long 112°54'24", in NE¼SW¼ sec.32, T.10 N., R.30 E., Clark County, Hydrologic Unit 17040216, on left bank 40 ft (12 m) upstream from bridge on Highway 28, 0.2 mi (0.3 km) downstream from Blue Dome Inn, 9 mi (14 km) southeast of former Reno Post Office, and 34 mi (55 km) west of Dubois.

DRAINAGE AREA.--380 mi² (980 km²), approximately.

PERIOD OF RECORD.--June 1967 to current year (no winter records). Prior to June 1972 at site 40 ft (12 m) downstream at same datum.

GAGE.--Water-stage recorder. Altitude of gage is 6,050 ft or 1,840 m (from topographic map).

REMARKS.--Records fair. Diversions above station for irrigation of about 280 acres or 110 hm² (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 149 ft³/s (4.22 m³/s) July 30, 1969 (gage height, 1.56 ft or 0.475 m); minimum recorded, 47 ft³/s (1.33 m³/s) June 26-29, 1977 (gage height, 1.53 ft or 0.466 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 98 ft³/s (2.78 m³/s) May 27 (gage height, 1.85 ft or 0.564 m); minimum recorded, 47 ft³/s (1.33 m³/s) June 26-29 (gage height, 1.53 ft or 0.466 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	85	54	60	60
2								---	85	56	59	58
3								---	83	58	59	55
4								---	83	58	59	56
5								---	81	59	59	56
6								---	74	58	62	56
7								---	70	56	63	58
8								---	66	56	66	59
9								---	72	55	62	59
10								---	64	55	62	59
11								---	62	55	64	60
12								---	60	54	56	63
13								---	55	54	55	62
14								---	54	54	58	62
15								---	55	54	59	63
16								---	56	53	60	64
17								---	56	54	60	70
18								---	54	55	60	66
19								---	54	58	62	67
20								---	56	56	59	72
21								---	55	59	56	74
22								---	54	59	59	75
23								---	54	59	60	81
24								---	53	69	60	85
25								---	50	72	62	83
26								---	50	69	62	83
27								93	49	64	60	81
28								87	49	64	60	79
29								89	50	63	60	79
30								87	53	62	60	81
31								87	---	62	60	---
TOTAL	---	---	---	---	---	---	---	---	1842	1814	1863	2026
MEAN	---	---	---	---	---	---	---	---	61.4	56.5	60.1	67.5
MAX	---	---	---	---	---	---	---	---	85	72	66	85
MIN	---	---	---	---	---	---	---	---	49	53	55	55
AC-FT	---	---	---	---	---	---	---	---	3650	3600	3700	4020

13117030 BIRCH CREEK AT EIGHT-MILE CANYON ROAD, NEAR RENO, ID

LOCATION.--Lat 44°04'49", long 112°52'30", in sec.28, T.9 N., R.30 E., Clark County, Hydrologic Unit 17040216, Bureau of Land Management lands, 300 ft (91 m) downstream from Eight-Mile Canyon road crossing, 5.5 mi (8.8 km) downstream from Blue Dome Inn, and 14 mi (23 km) southeast of Reno.

DRAINAGE AREA.--400 mi² (1,040 km²), approximately.

PERIOD OF RECORD.--June 1967 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,770 ft or 1,760 m (from topographic map).

REMARKS.--Records fair. Diversions above station for irrigation of about 350 acres or 140 hm² (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 108 ft³/s (3.06 m³/s) July 31, 1969 (gage height, 1.62 ft or 0.494 m); minimum recorded, 11 ft³/s (0.312 m³/s) July 5, 1967 (gage height, 0.97 ft or 0.296 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 61 ft³/s (1.73 m³/s) Sept. 28 (gage height, 1.08 ft or 0.329 m); minimum daily recorded, 36 ft³/s (1.02 m³/s) June 27.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

0.8	30
1.0	44
1.2	65

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	40	41	46
2									---	41	41	43
3									---	41	42	39
4									---	41	42	41
5									---	41	41	41
6									---	41	41	41
7									---	40	43	44
8									---	40	43	46
9									57	40	44	48
10									56	39	42	48
11									52	39	42	50
12									52	39	44	51
13									50	38	43	44
14									50	38	40	42
15									49	38	37	46
16									44	37	37	47
17									43	38	37	49
18									42	39	39	48
19									42	40	40	49
20									44	40	40	51
21									40	40	40	53
22									40	40	44	54
23									40	40	46	57
24									40	40	46	58
25									39	47	49	58
26									37	46	49	58
27									36	43	46	58
28									37	43	46	58
29									37	42	46	58
30									39	42	46	58
31									---	42	46	---
TOTAL									---	1255	1323	1484
MEAN									---	40.5	42.7	49.5
MAX									---	47	49	58
MIN									---	37	37	39
AC-FT									---	2490	2620	2940

13118700 LITTLE LOST RIVER BELOW WET CREEK, NEAR HOWE, ID

LOCATION.--Lat 44°08'19", long 113°14'39", in NW¼SE¼ sec.4, T.9 N., R.27 E., Butte County, Hydrologic Unit 17040217, Bureau of Land Management lands, on right bank at Clyde School, 0.6 mi (1.0 km) downstream from Wet Creek, and 27 mi (43 km) northwest of Howe.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,880 ft or 1,792 m (from topographic map).

REMARKS.--Records good except those for December to March, which are poor. Diversions above station for irrigation of about 3,800 acres (1,500 hm²) of which about 2,000 acres (800 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--19 years, 67.5 ft³/s (1.912 m³/s), 48,900 acre-ft/yr (60.3 hm³/yr).

EXTREMES for PERIOD OF RECORD.--Maximum discharge, 509 ft³/s (14.4 m³/s) June 16, 1975 (gage height, 3.19 ft or 0.972 m), but may have been more during period of doubtful gage-height record in 1958; maximum gage height recorded, 4.75 ft (1.448 m) Jan. 12, 1968 (ice jam); minimum discharge recorded, 2.8 ft³/s (0.079 m³/s) Dec. 13, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 294 ft³/s (8.33 m³/s) June 10 (gage height, 2.96 ft or 0.902 m); minimum daily, 23 ft³/s (0.651 m³/s) Jan. 10.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27-30, Dec. 2, 3, 10-14, 17-22)

1.6	22	2.2	86
1.7	30	2.4	125
1.8	38	2.7	204
2.0	59	3.0	309

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	70	24	23	28	30	37	42	102	74	56	46
2	79	70	26	24	28	30	37	45	162	76	55	45
3	82	70	27	24	28	30	39	45	157	80	55	46
4	80	69	28	25	28	30	42	46	165	90	54	46
5	80	68	29	24	29	32	44	45	172	99	52	46
6	79	68	27	25	30	33	46	47	167	80	61	43
7	79	68	27	24	29	36	47	49	159	73	61	42
8	79	68	28	25	29	38	48	53	172	69	70	40
9	79	55	29	24	30	37	47	54	204	66	60	41
10	79	55	28	23	29	34	44	54	260	62	55	43
11	77	54	26	24	30	38	45	57	217	60	56	46
12	76	49	27	25	30	37	45	55	192	56	53	46
13	76	40	27	26	32	36	46	53	195	54	51	45
14	76	37	27	26	30	34	46	54	198	53	50	46
15	76	37	27	27	29	32	42	59	184	51	51	48
16	76	45	26	27	30	34	44	60	167	50	50	48
17	76	47	28	30	34	33	46	70	157	48	49	50
18	73	50	28	29	34	33	45	70	144	46	49	52
19	73	47	27	27	33	33	42	70	135	46	50	52
20	70	44	27	28	32	34	42	68	137	45	47	50
21	72	41	26	27	31	37	42	60	137	48	46	50
22	72	49	26	27	30	40	42	66	123	56	48	54
23	73	44	24	27	28	39	43	69	117	61	49	53
24	72	45	24	25	28	38	43	80	110	72	46	51
25	74	49	24	26	29	37	44	106	106	130	48	52
26	72	36	25	25	29	37	45	114	99	104	51	53
27	69	34	26	26	30	37	45	114	92	85	52	53
28	69	30	26	26	30	35	44	106	85	72	50	52
29	70	30	26	26	---	36	42	99	80	66	50	52
30	70	29	25	27	---	37	42	92	77	63	50	53
31	69	---	24	27	---	37	---	87	---	59	47	---
TOTAL	2327	1498	819	799	837	1084	1306	2089	4472	2094	1622	1444
MEAN	75.1	49.9	26.4	25.8	29.9	35.0	43.5	67.4	149	67.5	52.3	48.1
MAX	82	70	29	30	34	40	48	114	260	130	70	54
MIN	69	29	24	23	28	30	37	42	77	45	46	40
AC-FT	4620	2970	1620	1580	1660	2150	2590	4140	8870	4150	3220	2860

CAL YR 1976 TOTAL 30740 MEAN 84.0 MAX 312 MIN 16 AC-FT 60970
WTR YR 1977 TOTAL 20391 MEAN 55.9 MAX 260 MIN 23 AC-FT 40450

13118700 LITTLE LOST RIVER BELOW WET CREEK, NEAR HOWE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 197 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 20...	1140	63	268	8.4	9.0	2.0	--	130	10
DEC 01...	1310	25	282	--	.5	2.0	0	--	--
JAN 12...	1300	25	305	--	-3.0	.0	3	--	--
MAR 12...	1200	36	260	--	4.5	2.5	0	--	--
APR 12...	1315	43	248	--	17.0	8.0	0	--	--
MAY 18...	1235	74	257	--	12.5	10.5	13	--	--
JUN 16...	1310	172	116	--	20.0	11.0	93	--	--
JUL 23...	0900	64	275	--	14.5	12.5	0	--	--
AUG 26...	0930	50	281	7.6	12.5	9.5	--	150	18
SEP 27...	1100	53	258	--	8.5	6.5	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 20...	32	11	3.5	6	.1	.7	140	0	115
DEC 01...	--	--	--	--	--	--	--	--	--
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--
AUG 26...	40	12	3.7	5	.1	.8	160	0	130
SEP 27...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 20...	10	2.7	.2	9.2	139	.19	23.6	.08	.03
DEC 01...	--	--	--	--	--	--	--	--	--
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--
AUG 26...	12	3.4	.1	10	161	.22	22.0	.07	.01
SEP 27...	--	--	--	--	--	--	--	--	--

13119000 LITTLE LOST RIVER NEAR HOWE, ID

LOCATION.--Lat 43°53'10", long 113°06'00", in SW¼SE¼ sec.34, T.7 N., R.28 E., Butte County, Hydrologic Unit 17040217, Bureau of Land Management lands, on left bank 0.2 mi (0.3 km) upstream from diversion dam of Blaine County Investment Co. and 7 mi (11 km) northwest of Howe.

DRAINAGE AREA.--703 mi² (1,820 km²). Mean altitude, 7,370 ft (2,246 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to current year (no winter records prior to October 1940). Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1637: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,020 ft or 1,530 m (by barometer). Prior to Sept. 2, 1938, nonrecording gage at site 120 ft (37 m) downstream at datum 1.39 ft (0.424 m) higher.

REMARKS.--Records good except those for December to February, which are fair. Diversions above station for irrigation of about 11,500 acres (4,650 hm²) of which about 7,600 acres (3,100 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--37 years (1941-77), 76.4 ft³/s (2.164 m³/s), 55,350 acre-ft/yr (68.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 450 ft³/s (12.7 m³/s) Aug. 11, 1936, during cloudburst (gage height, 5.4 ft or 1.65 m, present site and datum from rating curve extended above 220 ft³/s or 6.23 m³/s); maximum gage height observed, 6.63 ft (2.021 m) Jan. 23, 1957 (backwater from ice); minimum discharge observed, 4.1 ft³/s (0.116 m³/s) Dec. 12, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 224 ft³/s (6.34 m³/s) June 11 (gage height, 3.85 ft or 1.173 m); minimum daily discharge, 21 ft³/s (0.595 m³/s) Jan. 10.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 14, 15, 26-30, Dec. 1-3, 10-31, Jan. 1-31;
shifting-control method used Mar. 12 to Apr. 25)

2.1	21	3.0	113
2.4	45	3.4	168
2.7	75	3.9	240

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	90	38	28	30	41	64	76	108	99	75	64
2	95	88	38	26	30	42	63	77	147	97	73	61
3	102	86	36	27	30	43	63	79	169	100	73	60
4	100	87	39	27	31	45	61	81	166	110	72	59
5	99	87	41	25	31	50	59	81	166	125	71	58
6	101	87	41	23	32	52	61	81	169	110	75	56
7	99	90	41	24	31	55	63	83	171	102	79	55
8	99	92	42	24	31	60	63	88	177	99	87	54
9	97	83	42	24	32	57	66	85	181	99	83	55
10	96	80	39	21	32	54	67	76	200	94	75	58
11	96	80	38	22	32	58	65	87	218	90	74	63
12	94	76	36	22	32	54	61	87	200	86	71	63
13	92	65	37	24	34	56	69	82	191	79	67	61
14	92	59	37	25	33	60	69	82	192	75	66	63
15	92	56	36	27	32	59	66	86	189	72	66	65
16	92	63	37	28	33	63	63	91	181	71	66	68
17	94	66	37	31	36	65	66	96	174	66	63	74
18	95	62	38	30	39	65	68	97	163	65	62	74
19	94	61	37	29	38	67	67	95	155	66	61	72
20	90	59	36	29	37	66	66	94	158	65	62	72
21	96	53	35	28	36	68	67	90	161	67	66	74
22	95	56	34	28	37	68	68	90	150	76	69	76
23	96	68	33	27	38	68	68	91	142	79	71	75
24	95	65	32	26	38	68	67	99	133	81	62	74
25	94	64	31	26	39	66	72	114	123	127	62	77
26	94	54	31	27	39	65	73	126	120	122	66	77
27	92	50	31	27	40	64	73	123	116	109	68	75
28	94	45	32	28	40	61	76	122	112	95	65	74
29	95	42	33	28	---	58	76	116	103	86	64	73
30	94	40	32	29	---	57	76	113	101	81	61	74
31	92	---	30	29	---	65	---	106	---	79	62	---
TOTAL	2948	2056	1120	819	963	1821	2006	2894	4736	2772	2137	2004
MEAN	95.1	68.5	36.1	26.4	34.4	58.7	66.9	93.4	158	89.4	68.9	66.8
MAX	102	92	42	31	40	68	76	126	218	127	87	77
MIN	90	40	30	21	30	41	59	76	101	65	61	54
AC-FT	5850	4080	2220	1620	1910	3610	3980	5740	9390	5500	4240	3970

CAL YR 1976 TOTAL 35019 MEAN 95.7 MAX 231 MIN 30 AC-FT 69460
WTR YR 1977 TOTAL 26276 MEAN 72.0 MAX 218 MIN 21 AC-FT 52120

13119000 LITTLE LOST RIVER NEAR HOWE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1967, 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 20...	1325	96	329	8.4	10.0	5.0	--	150	13
DEC 01...	1620	38	434	--	1.5	.5	0	--	--
JAN 12...	1720	22	422	--	-2.0	.0	3	--	--
MAR 12...	1540	54	373	--	8.0	5.0	0	--	--
APR 12...	0825	60	450	--	7.0	4.5	0	--	--
MAY 18...	0950	97	325	--	10.0	7.0	13	--	--
JUN 16...	1020	176	291	--	19.5	12.5	1	--	--
JUL 23...	1100	76	338	--	16.0	13.5	0	--	--
AUG 26...	1340	64	349	8.4	11.0	12.0	--	170	10
SEP 27...	1400	75	326	--	14.0	9.5	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 20...	38	14	5.8	8	.2	1.1	170	0	139
DEC 01...	--	--	--	--	--	--	--	--	--
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--
AUG 26...	40	16	6.6	8	.2	1.2	190	0	160
SEP 27...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 20...	14	57	.2	11	225	.31	58.3	.13	400
DEC 01...	--	--	--	--	--	--	--	--	--
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--
AUG 26...	14	6.0	.1	12	190	.26	32.8	.09	.01
SEP 27...	--	--	--	--	--	--	--	--	--

13119500 BLAINE COUNTY INVESTMENT CO.'S CANAL NEAR HOWE, ID

LOCATION.--Lat 43°52'50", long 113°05'40", in NE¼NE¼ sec.3, T.6 N., R.28 E., Butte County, Hydrologic Unit 17040217, Bureau of Land Management lands, on left end of weir, 900 ft (270 m) downstream from headgates, and 7 mi (11 km) northwest of Howe.

PERIOD OF RECORD.--April 1924 to current year (prior to 1938, irrigation seasons only).

GAGE.--Nonrecording gage and Parshall flume. Altitude of gage is 5,020 ft or 1,530 m (from nearby barometric determination). Prior to June 26, 1927, at site 700 ft (210 m) upstream at different datum. June 26, 1927, to May 6, 1945, at site 180 ft (55 m) upstream at present datum.

REMARKS.--Records good. Canal diverts from Little Lost River in NE¼NE¼ sec.3, T.6 N., R.28 E., for irrigation of lands in project of Blaine County Investment Co.

COOPERATION.--Gage readings furnished by Water District 33.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 146 ft³/s (4.13 m³/s) Apr. 26, 1966; no flow for long periods each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	38	.00	.00	.00	.00	.00	9.7	23	14	13	9.7
2	14	38	.00	.00	.00	.00	.00	9.7	28	12	12	9.7
3	14	38	.00	.00	.00	.00	.00	9.7	39	12	12	9.3
4	11	38	.00	.00	.00	.00	.00	9.7	48	12	11	9.0
5	8.8	38	.00	.00	.00	.00	.00	9.7	53	13	11	9.0
6	8.0	38	.00	.00	.00	.00	.00	9.7	60	15	11	9.0
7	9.0	38	.00	.00	.00	.00	.00	9.7	63	16	11	8.8
8	9.7	38	.00	.00	.00	.00	.00	9.7	68	16	12	8.3
9	8.7	37	.00	.00	.00	.00	.00	9.7	72	12	13	8.3
10	8.0	36	.00	.00	.00	.00	.00	9.7	78	9.7	13	8.0
11	8.3	36	.00	.00	.00	.00	.00	10	93	9.7	13	8.0
12	9.0	39	.00	.00	.00	.00	20	11	96	8.9	13	8.0
13	9.0	41	.00	.00	.00	.00	28	9.6	90	8.3	11	8.0
14	9.0	19	.00	.00	.00	.00	24	9.2	95	3.5	10	8.0
15	9.0	.00	.00	.00	.00	.00	19	9.7	96	.00	9.9	8.0
16	9.0	.00	.00	.00	.00	.00	13	9.9	85	.00	9.7	8.0
17	9.6	.00	.00	.00	.00	.00	11	11	78	.00	9.7	8.0
18	13	.00	.00	.00	.00	.00	10	12	66	.00	9.7	8.3
19	14	.00	.00	.00	.00	.00	10	10	56	.00	9.7	8.6
20	14	.00	.00	.00	.00	.00	10	11	52	.00	9.7	8.6
21	14	.00	.00	.00	.00	.00	4.2	11	52	.00	9.7	8.6
22	15	.00	.00	.00	.00	.00	.00	10	48	.00	9.7	8.6
23	15	.00	.00	.00	.00	.00	.00	10	39	4.7	9.7	8.6
24	15	.00	.00	.00	.00	.00	.00	10	36	11	9.7	8.6
25	16	.00	.00	.00	.00	.00	.00	10	26	13	9.7	8.6
26	19	.00	.00	.00	.00	.00	.00	23	19	27	9.7	8.6
27	22	.00	.00	.00	.00	.00	.00	31	18	29	9.7	8.6
28	24	.00	.00	.00	.00	.00	5.7	33	17	28	9.7	3.6
29	30	.00	.00	.00	---	.00	9.5	33	17	20	9.7	.00
30	35	.00	.00	.00	---	.00	9.7	30	16	15	9.7	.00
31	37	---	.00	.00	---	.00	---	20	---	14	9.7	---
TOTAL	452.1	512.00	.00	.00	.00	.00	174.10	427.4	1627	323.80	331.1	234.40
MEAN	14.6	17.1	.000	.000	.000	.000	5.80	13.8	54.2	10.4	10.7	7.81
MAX	37	41	.00	.00	.00	.00	28	33	96	29	13	9.7
MIN	8.0	.00	.00	.00	.00	.00	.00	9.2	16	.00	9.7	.00
AC-FT	897	1020	.00	.00	.00	.00	345	848	3230	642	657	465

13120000 NORTH FORK BIG LOST RIVER AT WILD HORSE, NEAR CHILLY, ID

LOCATION.--Lat 43°55'59", long 114°06'47", in NE¼SE¼ sec.17, T.7 N., R.20 E., Custer County, Hydrologic Unit 17040218, in Challis National Forest, on right bank 0.2 mi (.3 km) upstream from East Fork, 2 mi (3.2 km) downstream from Wild Horse damsite, and 16 mi (25.7 km) southwest of Chilly.

DRAINAGE AREA.--114 mi² (295 km²). Mean altitude, 8,540 ft (2,603 m).

PERIOD OF RECORD.--March 1944 to current year. Prior to October 1967, published as Big Lost River at Wild Horse, near Chilly.

GAGE.--Water-stage recorder. Altitude of gage is 6,820 ft or 2,079 m (from topographic map).

REMARKS.--Records good. There are several small ranch diversions upstream for local irrigation.

AVERAGE DISCHARGE.--33 years, 107 ft³/s (3.002 m³/s), 12.62 in/yr (321 mm/yr), 76,800 acre-ft/yr (94.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,420 ft³/s (40.2 m³/s) June 12, 1965 (gage height, 6.39 ft or 1.948 m); minimum, 6.1 ft³/s (0.17 m³/s) Feb. 25, Mar. 14, 1977 (gage height, 1.03 ft or 0.314 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 531 ft³/s (15.0 m³/s) June 10 (gage height, 4.02 ft or 1.225 m), only peak above base of 300 ft³/s (8.50 m³/s); minimum, 6.1 ft³/s (0.173 m³/s) Feb. 25, Mar. 14 (gage height, 1.03 ft or 0.314 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.0	5.0	2.5	129
1.2	13	2.7	158
1.3	18	4.0	523
1.6	38	4.1	561
2.3	104		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	42	25	20	22	16	14	57	186	92	70	38
2	73	42	25	19	20	16	14	58	307	92	68	37
3	81	41	25	20	19	15	14	52	272	116	66	35
4	72	41	26	20	21	15	14	45	319	231	64	34
5	70	40	23	19	20	15	16	41	366	259	62	32
6	68	40	23	19	20	15	20	41	395	196	61	31
7	66	39	25	20	20	15	25	40	392	163	58	30
8	63	39	25	20	20	14	32	39	405	144	67	29
9	61	39	26	20	20	14	35	40	401	130	61	29
10	61	38	23	20	20	14	29	44	476	124	56	29
11	59	38	25	19	20	13	29	42	411	112	55	27
12	58	35	23	20	19	14	28	41	334	104	53	28
13	56	30	23	20	19	14	29	44	295	98	51	27
14	55	29	22	19	17	13	28	51	267	91	51	27
15	54	32	22	19	17	14	27	61	229	85	50	29
16	53	34	23	19	17	14	30	66	209	81	49	32
17	52	33	21	19	16	15	30	63	190	74	47	35
18	49	33	20	20	17	14	29	61	179	70	46	32
19	47	32	20	20	16	14	27	60	172	69	45	31
20	47	30	20	19	16	14	28	58	173	69	45	33
21	47	29	20	19	16	15	29	57	170	70	44	33
22	46	32	20	19	15	15	30	59	156	83	46	35
23	45	30	22	17	16	15	32	79	152	101	44	35
24	45	30	22	18	15	14	35	101	144	117	41	36
25	46	32	21	19	15	14	40	115	143	143	43	36
26	45	24	23	19	16	14	44	121	133	125	45	35
27	43	19	23	21	16	14	50	119	124	109	44	33
28	44	24	20	20	16	13	52	108	112	97	42	33
29	44	26	21	20	---	14	54	100	103	87	41	35
30	43	26	20	20	---	14	55	92	97	80	38	38
31	42	---	20	22	---	14	---	98	---	75	40	---
TOTAL	1708	999	697	605	501	444	919	2053	7312	3487	1593	974
MEAN	55.1	33.3	22.5	19.5	17.9	14.3	30.6	66.2	244	112	51.4	32.5
MAX	81	42	26	22	22	16	55	121	476	259	70	38
MIN	42	19	20	17	15	13	14	39	97	69	38	27
CFSM	.48	.29	.20	.17	.16	.13	.27	.58	2.14	.98	.45	.29
IN.	.56	.33	.23	.20	.16	.14	.30	.67	2.39	1.14	.52	.32
AC-FT	3390	1980	1380	1200	994	881	1820	4070	14500	6920	3160	1930

CAL YR 1976 TOTAL 41782 MEAN 114 MAX 628 MIN 18 CFSM 1.00 IN 13.63 AC-FT 82870
WTR YR 1977 TOTAL 21292 MEAN 58.3 MAX 476 MIN 13 CFSM .51 IN 6.95 AC-FT 42230

13120500 BIG LOST RIVER AT HOWELL RANCH, NEAR CHILLY, ID

LOCATION.--Lat 43°59'54", long 114°01'12", in NE¼NW¼ sec.30, T.8 N., R.21 E., Custer County, Hydrologic Unit 17040218, on left bank at Howell Ranch, 2.1 mi (3.4 km) downstream from Burnt Creek, 7.7 mi (12.4 km) downstream from East Fork, 9 mi (14.5 km) southwest of Chilly, and 21 mi (33.8 km) northwest of Mackay.

DRAINAGE AREA.--450 mi² (1,170 km²). Mean altitude, 8,590 ft (2,618 m).

PERIOD OF RECORD.--April 1904 to November 1914, May 1920 to current year (no winter records 1904, 1906-14, 1920-48).

REVISED RECORDS.--WSP 1287: Drainage area. WSP 1317: 1905.

GAGE.--Water-stage recorder. Datum of gage is 6,621.95 ft (2,018.37 m) above mean sea level. See WSP 1737 for history of changes prior to June 11, 1920.

REMARKS.--Records good except those for winter periods, which are poor. No regulation. Diversions above station for irrigation of about 3,000 acres or 1,210 hm² (1966 determination). Hammerly ditch (capacity, about 20 ft³/s or 0.56 m³/s) diverts 0.2 mi (0.3 km) downstream.

AVERAGE DISCHARGE.--30 years (1905, 1949-77), 323 ft³/s (9.15 m³/s), 9.75 in/yr (247.6 mm/yr), 234,000 acre-ft/yr (288 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,420 ft³/s (125 m³/s) May 25, 1967 (gage height, 6.02 ft or 1.835 m); minimum observed, 19 ft³/s (0.54 m³/s) Dec. 12, 1939 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) June 8 (gage height, 3.89 ft or 1.19 m), only peak above base of 900 ft³/s (25.5 m³/s); minimum daily discharge, 53 ft³/s (1.50 m³/s) Mar. 11, 14.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 16-20)

0.9	41	1.7	226
1.0	55	2.0	346
1.1	72	2.5	608
1.3	112	3.0	938
1.5	163	4.0	1,810

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	129	94	75	81	64	56	200	512	255	167	106
2	200	132	94	72	78	64	56	200	982	247	161	101
3	251	132	94	76	72	61	56	176	873	286	161	96
4	222	129	97	76	74	60	60	158	1060	534	158	93
5	209	127	87	72	74	60	67	137	1320	614	153	90
6	200	127	86	72	73	60	80	134	1490	423	161	88
7	193	124	94	75	73	60	92	134	1540	346	156	88
8	187	124	95	76	73	60	114	137	1540	307	179	84
9	181	124	98	76	73	57	130	142	1330	278	171	83
10	175	122	87	75	73	57	109	155	1470	262	154	83
11	172	117	94	72	73	53	104	147	1270	240	148	81
12	169	110	86	75	71	56	105	139	1030	219	141	81
13	167	106	86	75	68	56	106	142	866	209	134	81
14	164	110	84	72	68	53	108	161	838	200	131	80
15	161	120	84	72	64	56	95	193	712	193	130	83
16	158	128	85	71	64	56	112	200	632	184	125	90
17	155	124	79	71	64	60	127	196	568	178	121	97
18	147	124	75	75	64	56	110	190	534	167	119	94
19	142	120	75	75	64	56	101	187	496	164	118	91
20	145	114	73	71	64	56	97	184	540	161	115	93
21	145	110	74	73	64	60	101	175	602	164	116	96
22	142	120	74	72	60	60	106	178	528	187	131	102
23	142	114	82	68	64	60	119	216	485	255	124	101
24	137	114	83	68	60	56	139	282	454	294	113	101
25	142	120	79	72	60	56	155	307	448	464	114	103
26	139	97	86	72	64	56	178	324	408	328	123	100
27	132	72	86	74	64	60	212	319	365	270	123	96
28	134	90	75	75	64	56	206	294	324	233	118	95
29	134	97	79	75	---	60	200	270	298	206	112	97
30	134	94	75	75	---	60	203	251	274	190	106	107
31	129	---	75	81	---	56	---	255	---	178	107	---
TOTAL	5108	3476	2615	2284	1908	1801	3506	6185	23789	8236	4190	2781
MEAN	165	116	84.4	73.7	68.1	58.1	117	200	793	266	135	92.7
MAX	251	132	98	81	81	64	212	324	1540	614	179	107
MIN	129	72	73	68	60	53	56	134	274	161	106	80
AC-FT	10130	6890	5190	4530	3780	3570	6950	12270	47190	16340	8310	5520

CAL YR 1976 TOTAL 123159 MEAN 337 MAX 1760 MIN 62 AC-FT 244300
WTR YR 1977 TOTAL 65879 MEAN 180 MAX 1540 MIN 53 AC-FT 130700

NOTE.--No gage-height record Dec. 2 to Apr. 13.

13126000 MACKAY RESERVOIR NEAR MACKAY, ID

LOCATION.--Lat 43°57'05", long 113°40'28", in NW¼NE¼SW¼ sec.12, T.7 N., R.23 E., Custer County, Hydrologic Unit 17040218, on gate-control tower of Mackay Dam on Big Lost River and 4 mi (6.4 km) northwest of Mackay.

DRAINAGE AREA.--788 mi^2 (2,040 km^2).

PERIOD OF RECORD.--January 1919 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,000 ft (1,828 m) above mean sea level, Utah Construction Co. datum, or 6,000.4 ft (1,828.9 m) above mean sea level. Prior to Oct. 15, 1959, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth- and rock-fill dam, which was reconstructed in 1917-18; storage impounded by original dam not recorded. Crest of spillway was raised 5 ft (1.5 m) in September 1956. Capacity is 44,370 acre-ft (54.7 hm^3) between gage heights 7.0 (2.1 m) and 66.5 ft or 20.27 m (crest of spillway). Dead storage reported to be about 125 acre-ft (0.154 hm^3). Water is used for irrigation of about 33,000 acres (13,400 hm^2) in Big Lost River irrigation district. About 12,700 acres (5,140 hm^2) irrigated from Big Lost River and tributaries above reservoir by surface diversions, and about 10,200 acres (4,130 hm^2) irrigated by subirrigation. Considerable seepage around dam because of its porous foundation, but the greater part of this water returns to Big Lost River between reservoir and station below reservoir, near Mackay. Prior to Oct. 1, 1959, contents below 1,000 acre-ft (1.233 hm^3) may be in error at times as readings at gage were too low because of fall in outlet channel. Figures given herein represent usable contents.

COOPERATION.--Capacity table furnished by Water District 34.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 46,070 acre-ft (56.8 hm^3) May 14, 1976 (gage height, 67.73 ft or 20.644 m); no available contents during periods in 1919-20, 1924, 1926, 1929, 1931-35, 1974; minimum gage height observed, 6.3 ft (1.92 m) Aug. 5, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 36,870 acre-ft (45.5 hm^3) June 16 (gage height, 60.78 ft or 18.526 m); minimum, 547 acre-ft (0.674 hm^3) Oct. 10 (gage height, 9.85 ft or 3.002 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

9.0	363	30.0	8,730
10.0	580	35.0	12,020
15.0	1,934	40.0	15,800
20.0	3,740	50.0	24,680
25.0	5,990	60.0	35,900

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	598	---	---	15760	21800	25940	29430	30470	28920	28480	11180	---
2	603	---	7470	16000	21970	26040	29550	30260	28900	27610	10690	---
3	605	---	7800	16220	22130	26180	29640	30050	28870	26850	10180	---
4	621	3160	8730	16440	22290	26300	29720	29840	29070	26180	9620	---
5	626	---	---	16650	22460	26400	29810	29650	29740	25580	9030	---
6	596	---	---	16860	22600	26540	29860	29550	30650	25100	8510	---
7	589	---	8900	17080	22730	26650	29920	29520	31750	24700	8020	---
8	573	---	---	17290	22910	26780	30020	29430	32740	24360	7590	---
9	558	---	---	17480	23060	26940	30060	29330	33580	23950	7180	---
10	547	---	---	17710	23210	27030	30100	29190	34450	23530	6770	---
11	---	---	---	17920	23350	27130	30160	29080	35290	23040	6440	---
12	---	---	---	18110	23500	27250	30190	28970	35960	22570	6010	---
13	---	---	---	18300	23650	27360	30260	28850	36380	22020	5670	---
14	2740	---	11040	18520	23830	27500	30290	28770	36730	21530	5310	---
15	---	---	---	18690	23970	27610	30310	28630	36840	20980	4980	---
16	---	---	---	18930	24110	27710	30390	28570	36870	20410	4640	---
17	---	---	---	19130	24260	27840	30420	28480	36710	19730	4280	---
18	---	---	---	19290	24400	27950	30470	28390	36430	19060	---	---
19	---	---	12570	19500	24540	28090	30500	28290	36070	18390	---	---
20	---	---	12820	19680	24700	28190	30540	28190	35720	17660	---	---
21	---	---	13090	19870	24870	28290	30600	28110	35330	16900	---	---
22	---	---	13350	20040	25000	28400	30640	27980	34950	16230	---	---
23	---	---	13600	20260	25120	28530	30690	27920	34530	15520	---	---
24	---	---	13860	20420	25260	28620	30760	27990	34040	14970	---	---
25	---	---	14100	20600	25390	28720	30820	28190	33480	14470	---	---
26	---	---	14350	20810	25510	28840	30900	28320	32850	13980	---	---
27	---	---	14600	20980	25630	28980	30940	28460	32110	13410	---	---
28	---	---	14830	21150	25780	29030	31020	28580	31330	12960	---	---
29	---	---	15060	21330	---	29130	30930	28680	30380	12520	---	---
30	---	4780	15290	21470	---	29230	30700	28760	29390	12080	---	463
31	3280	---	15540	21650	---	29350	---	28860	---	11670	948	---
MAX	---	---	---	21650	25780	29350	31020	30470	36870	28480	---	---
MIN	---	---	---	15760	21800	25940	29430	27920	28870	11670	---	---
(†)	---	---	39.73	46.88	51.07	54.40	55.60	53.96	54.44	34.50	---	---
(‡)	+2665	+1500	+10760	+6110	+4130	+3570	+1350	-1840	+530	-17720	-10722	-485

CAL YR 1976............ ‡ -3550
WTR YR 1977............ ‡ -152

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

13127000 BIG LOST RIVER BELOW MACKAY RESERVOIR, NEAR MACKAY, ID

LOCATION.--Lat 43°56'20", long 113°38'50", in SW¼NE¼ sec.18, T.7 N., R.24 E., Custer County, Hydrologic Unit 17040218, on left bank 1.4 mi (2.3 km) downstream from head of Sharp ditch, 1.6 mi (2.6 km) downstream from Mackay Reservoir, and 2.5 mi (4 km) northwest of Mackay.

DRAINAGE AREA.--813 mi² (2.106 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1903 to August 1906 and May 1912 to March 1915 (published as "near Mackay"), January 1919 to current year.

REVISED RECORDS.--WSP 1347: 1904-6.

GAGE.--Water-stage recorder. Datum of gage is 5,946.39 ft (1,812 m) above mean sea level. Nonrecording gage prior to May 12, 1912, and June 5, 1912, to Apr. 28, 1913, at sites within 1 mi (1.6 km) upstream at different datums, May 12 to June 4, 1912, at site 1.5 mi (2.4 km) upstream (above Sharp ditch) at different datum, Apr. 29, 1913, to Mar. 15, 1915, at site 1 mi (1.6 km) downstream (below Streeter ditch) at different datum.

REMARKS.--Records good except those during periods of no gage-height record, which are fair. Flow completely regulated by Mackay Reservoir (see sta 13126000). Sharp ditch is only diversion between station and reservoir; about 12,700 acres (4,140 hm²) of land are irrigated by diversions from river and tributaries above reservoir by surface diversions, and 10,200 acres (4,130 hm²) irrigated by subirrigation.

AVERAGE DISCHARGE.--61 years (1905, 1913-14, 1920-77), 302 ft³/s (8.55 m³/s), 218,800 acre-ft/yr (270 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft³/s (94.7 m³/s) June 10, 1921 (gage height, 5.79 ft or 1.765 m); minimum, 16 ft³/s (0.45 m³/s) Oct. 27, 1967 (gage height, 1.11 ft or 0.338 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 772 ft³/s (21.9 m³/s) June 10 (gage height, 3.14 ft or 0.957 m); minimum, 33 ft³/s (0.93 m³/s) Nov. 21 (gage height, 1.22 ft or 0.372 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.2	31	2.5	356
1.3	41	3.0	633
1.5	64	4.0	1,300
2.0	162		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	247	50	68	90	100	100	251	138	669	448	175
2	356	242	51	69	91	100	99	247	166	633	448	178
3	361	292	52	70	91	100	99	247	200	620	453	180
4	361	288	53	70	92	100	102	243	232	590	475	181
5	361	284	54	71	92	102	104	221	232	560	481	182
6	366	280	55	72	92	102	104	207	337	521	475	182
7	361	280	55	72	92	102	104	207	427	481	470	180
8	356	275	55	73	93	102	102	207	566	475	448	179
9	351	275	56	73	93	102	100	207	657	470	427	178
10	347	275	56	74	94	102	97	207	701	464	416	177
11	187	271	57	75	94	102	97	207	651	498	406	177
12	64	232	57	76	94	102	95	204	572	481	396	177
13	43	411	57	76	94	100	95	204	537	481	376	179
14	100	376	58	77	95	100	95	204	526	481	366	180
15	342	247	58	78	95	100	95	204	549	481	361	182
16	337	133	59	79	95	102	95	204	549	492	337	182
17	333	39	59	80	96	102	95	200	566	543	319	181
18	328	41	60	82	96	102	95	200	584	537	324	178
19	333	44	60	83	96	102	95	200	602	515	333	175
20	328	49	61	84	97	102	95	200	614	549	306	175
21	319	49	62	85	97	102	95	200	608	584	267	178
22	310	35	62	86	97	102	95	200	590	572	236	178
23	306	37	62	87	98	102	95	191	590	560	211	175
24	306	39	63	88	100	102	95	128	596	555	197	175
25	306	40	63	89	100	102	95	100	608	521	187	175
26	301	41	64	89	100	102	95	100	620	492	184	172
27	306	42	64	89	100	102	97	100	639	481	181	172
28	306	44	65	90	102	102	97	100	639	475	181	172
29	306	46	66	90	---	102	194	100	688	448	178	175
30	306	48	66	90	---	102	251	100	701	437	178	175
31	306	---	67	90	---	102	---	99	---	427	175	---
TOTAL	9344	5152	1827	2475	2666	3148	3172	5689	15685	16093	10240	5325
MEAN	301	172	58.9	79.8	95.2	102	106	184	523	519	330	178
MAX	366	411	67	90	102	102	251	251	701	669	481	182
MIN	43	35	50	68	90	100	95	99	138	427	175	172
AC-FT	18530	10220	3620	4910	5290	6240	6290	11280	31110	31920	20310	10560

CAL YR 1976 TOTAL 135407 MEAN 370 MAX 1430 MIN 35 AC-FT 268600
WTR YR 1977 TOTAL 80816 MEAN 221 MAX 701 MIN 35 AC-FT 160300

13127000 BIG LOST RIVER BELOW MACKAY RESERVOIR, NEAR MACKAY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1974 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1966-69, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 04...	1030	289	269	8.8	4.5	6.0	--	140	3
DEC 19...	1110	60	307	--	-5.5	3.0	0	--	--
JAN 26...	0925	89	271	--	-10.5	2.5	1	--	--
MAR 11...	0845	102	279	--	-6.0	4.0	0	--	--
APR 12...	0940	93	277	--	6.5	6.5	0	--	--
MAY 17...	1215	200	293	--	8.0	8.0	72	--	--
JUN 22...	1645	579	272	--	21.5	13.0	2	--	--
AUG 08...	1300	446	266	--	17.0	16.5	0	--	--
SEP 17...	1230	186	292	--	11.0	11.0	1	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 04...	40	9.5	5.8	8	.2	1.3	170	0	139
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 26...	--	--	--	--	--	--	--	--	--
MAR 11...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 17...	--	--	--	--	--	--	--	--	--
JUN 22...	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 04...	17	4.2	.3	10	170	.23	133	.02	.01
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 26...	--	--	--	--	--	--	--	--	--
MAR 11...	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--
MAY 17...	--	--	--	--	--	--	--	--	--
JUN 22...	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--

13132500 BIG LOST RIVER NEAR ARCO, ID

LOCATION.--Lat 43°35'00", long 113°16'10", in SW¼ sec.17, T.3 N., R.27 E., Butte County, Hydrologic Unit 17040218, on right bank 0.4 mi (0.6 km) downstream from slough entering from left bank and 4 mi (6.4 km) southeast of Arco.

DRAINAGE AREA.--1,410 mi² (3,650 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1946 to September 1961, May 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,240 ft (1,597 m) by barometer. Prior to Oct. 14, 1952, at site 800 ft (244 m) upstream at datum 3.08 ft (0.939 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Mackay Reservoir (see sta 13126000). Station is below all large diversions for irrigation in Big Lost River valley. About 57,500 acres (23.300 hm³) of land irrigated by diversions from river and tributaries and by ground-water withdrawals above station. About 10,200 acres (4,100 hm³) irrigated by subirrigation above Mackay Reservoir.

AVERAGE DISCHARGE.--26 years, 101 ft³/s (2.86 m³/s), 73,170 acre-ft/yr (90.2 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/s (53.5 m³/s) July 5, 1967 (gage height, 7.68 ft or 2.341 m); no flow on many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1965, reached a stage of 8.03 ft (2.448 m), from floodmarks, discharge, 2,500 ft³/s (70.8 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 320 ft³/s (9.06 m³/s) Nov. 15 (gage height, 4.54 ft or 1.384 m); minimum, 0.15 ft³/s (0.004 m³/s) Aug. 11 (gage height, 1.95 ft or 0.594 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27-29, Dec. 6, 10, Dec. 12 to Feb. 17, Feb. 26-27, Mar. 11, 15)

1.97	0.25	3.0	35
2.0	.4	3.3	65
2.1	1.3	3.6	107
2.2	2.9	4.0	180
2.4	7.6	4.6	345
2.7	18		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	231	77	49	46	60	26	14	2.1	9.2	1.5	2.4
2	131	231	79	45	50	60	25	17	1.5	7.3	.35	3.7
3	142	231	81	40	46	61	24	15	.76	7.9	1.6	2.9
4	140	228	82	38	47	60	24	15	.40	8.5	1.6	2.9
5	153	228	82	42	49	60	24	19	.40	13	.49	3.7
6	153	228	80	40	50	60	17	20	.40	10	.58	2.9
7	155	223	82	38	50	59	12	16	.58	6.8	1.0	1.9
8	163	225	82	36	50	59	12	17	.40	1.8	.76	1.9
9	163	225	84	29	52	59	11	16	1.1	2.3	1.9	3.5
10	161	228	79	38	52	58	11	14	6.3	4.6	.36	2.4
11	172	225	78	41	52	58	10	13	15	4.6	1.8	1.5
12	153	239	73	41	52	59	9.5	12	13	1.9	1.3	1.0
13	120	236	72	41	53	58	9.8	11	11	1.6	3.7	2.1
14	98	287	68	42	54	55	11	9.5	6.0	1.3	2.3	1.2
15	89	317	68	44	55	55	11	8.2	5.5	2.7	1.3	3.3
16	117	296	65	46	56	54	10	8.8	6.0	.40	.67	1.6
17	142	244	64	47	56	53	8.8	8.5	5.0	.35	.94	2.4
18	153	185	64	46	59	52	8.2	9.2	9.2	.67	2.4	3.7
19	169	165	61	44	58	52	8.5	9.2	14	.35	1.2	4.4
20	180	151	53	44	58	52	9.2	8.5	21	.35	.35	4.0
21	189	144	50	44	57	52	8.2	8.5	28	.35	.49	4.8
22	201	137	52	42	58	51	7.6	7.9	28	2.4	.25	2.9
23	203	125	53	42	58	41	6.8	3.7	24	.94	1.3	2.9
24	201	113	50	41	57	37	6.6	9.5	18	2.1	.35	3.1
25	205	105	49	41	60	35	6.6	25	20	7.1	.94	2.6
26	208	96	48	41	60	32	6.0	13	17	5.5	1.3	1.8
27	213	82	48	41	60	30	7.3	9.8	15	2.6	3.5	.85
28	220	78	53	42	60	26	8.2	8.5	9.8	1.3	3.7	2.3
29	225	78	53	42	---	27	8.8	6.3	7.9	2.6	1.6	3.1
30	231	77	53	43	---	28	9.8	7.6	7.9	2.3	2.6	3.7
31	228	---	51	45	---	30	---	2.4	---	3.7	4.8	---
TOTAL	5196	5658	2034	1295	1515	1533	357.9	363.1	295.24	116.51	46.93	81.45
MEAN	168	189	65.6	41.8	54.1	49.5	11.9	11.7	9.84	3.76	1.51	2.72
MAX	231	317	84	49	60	61	26	25	28	13	4.8	4.8
MIN	89	77	48	29	46	26	6.0	2.4	.40	.35	.25	.85
AC-FT	10310	11220	4030	2570	3010	3040	710	720	586	231	93	162

CAL YR 1976 TOTAL 32558.00 MEAN 89.0 MAX 317 MIN 16 AC-FT 64580
WTR YR 1977 TOTAL 18492.13 MEAN 50.7 MAX 317 MIN .25 AC-FT 36680

13132500 BIG LOST RIVER NEAR ARCO, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 02...	1600	217	348	8.6	20.5	10.0	--	190	5
DEC 19...	1255	66	436	--	7.0	.5	0	--	--
JAN 25...	1415	39	420	--	5.0	1.5	0	--	--
MAR 10...	1430	51	451	--	2.5	3.0	1	--	--
APR 11...	1310	10	474	--	18.0	8.5	0	--	--
MAY 16...	1410	8.4	430	8.8	9.0	12.5	3	220	21
JUN 21...	1530	37	375	--	26.5	19.5	2	--	--
AUG 08...	1715	1.6	331	--	21.0	23.5	1	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 02...	56	13	7.8	8	.2	1.5	230	0	189
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
APR 11...	--	--	--	--	--	--	--	--	--
MAY 16...	61	16	10	9	.3	1.8	240	0	200
JUN 21...	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 02...	18	4.9	.3	11	227	.31	133	.16	.02
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
APR 11...	--	--	--	--	--	--	--	--	--
MAY 16...	22	6.7	.3	11	247	.34	5.64	.08	.01
JUN 21...	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--

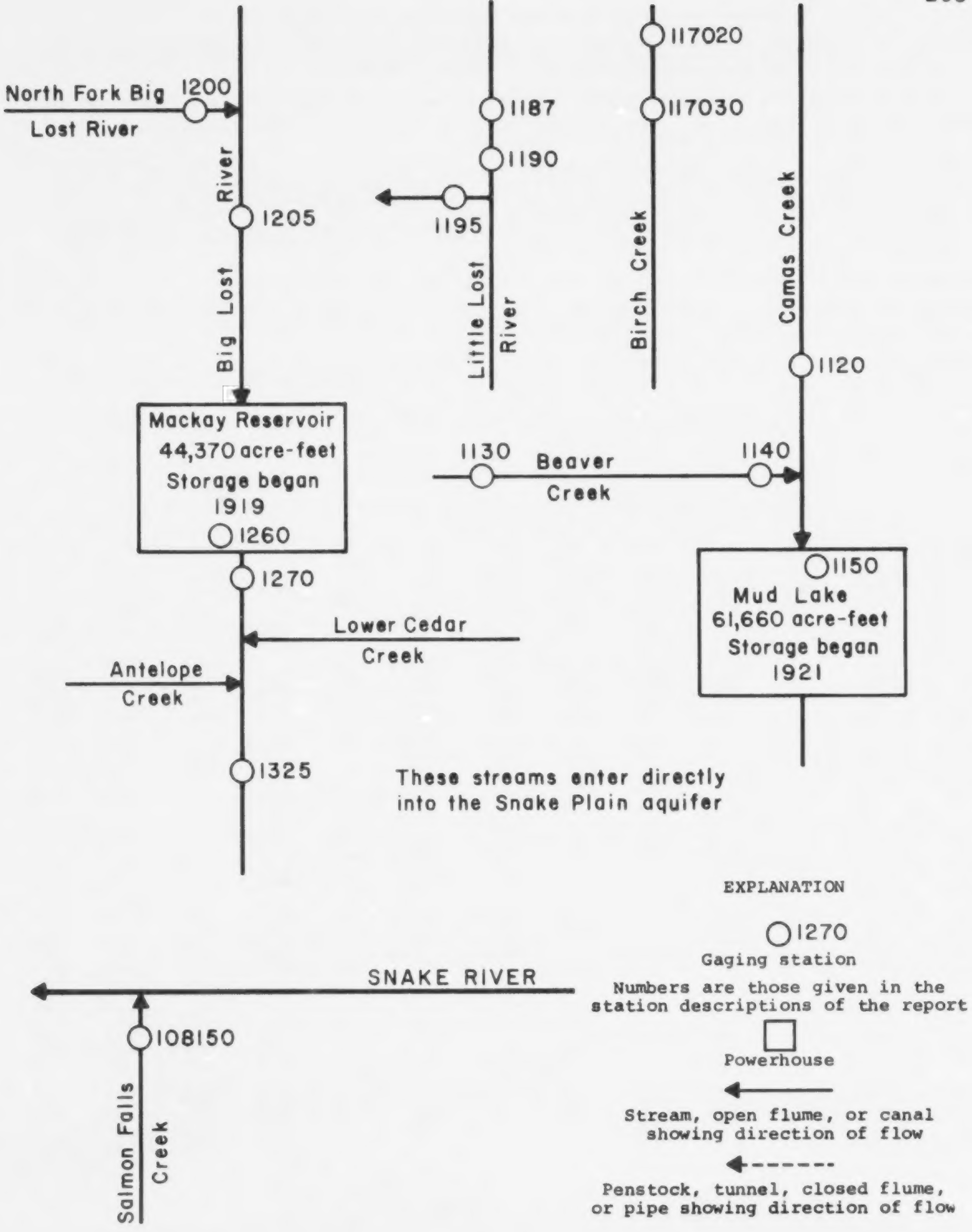
North Fork Big Lost River
1200
Big Lost River
1205
Mackay Reservoir
44,370 acre-feet
Storage began
1919
1260
1270
Lower Cedar Creek
Antelope Creek
1325
1187
1190
1195
Little Lost River
117020
117030
Birch Creek
Camas Creek
1120
1130
Beaver Creek
1140
1150
Mud Lake
61,660 acre-feet
Storage began
1921
These streams enter directly into the Snake Plain aquifer
SNAKE RIVER
108150
Salmon Falls Creek
EXPLANATION
1270
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow

FIGURE 15.--Gaging stations in Mud Lake-Lost River basins.

13135000 SNAKE RIVER BELOW LOWER SALMON FALLS, NEAR HAGERMAN, ID

LOCATION.--Lat 42°50'55", long 114°54'02", in NW¼ sec.2, T.7 S., R.13 E., Gooding County, Hydrologic Unit 17040212, on right bank 0.5 mi (0.8 km) downstream from Lower Salmon Falls powerplant, 1 mi (1.6 km) upstream from Big Wood River, 2.2 mi (3.5 km) north of Hagerman, and at mile 572.5 (921.2 km).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for October 1937, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 2,727.7 ft (831.401 m) above mean sea level (stadia levels). Prior to Jan. 3, 1950, at site 340 ft (103.6 m) upstream.

REMARKS.--Records good. Flow regulated by American Falls Reservoir 141.6 mi (227.8 km) upstream (see sta 13076500). Diurnal fluctuation caused by hydroelectric plants upstream. At times, practically entire flow is diverted at Milner during irrigation seasons; only minor diversions below Milner. Most of the percolation upstream into the Snake Plain aquifer returns above station, including some water diverted from Big Wood River. Diversions above station for irrigation of about 2,330,000 acres (943,000 hm²) of which about 665,000 acres (269,000 hm²) are by withdrawals from ground water and about 83,000 acres (33,600 hm²) are irrigated below station.

AVERAGE DISCHARGE.--40 years, 9,100 ft³/s (258 m³/s), 6,593,000 acre-ft/yr (8,129 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft³/s (884 m³/s) June 24, 1964 (gage height, 15.73 ft or 4.795 m); minimum, probably less than 100 ft³/s (2.83 m³/s) Jan. 10, 11, 1950, when river was below intake pipes; minimum daily, 3,970 ft³/s (112 m³/s) July 8, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,300 ft³/s (490 m³/s) Dec. 2 (gage height, 11.22 ft or 3.420 m); minimum, 1,120 ft³/s (31.7 m³/s) Apr. 8 (gage height, 3.21 ft or 0.978 m); minimum daily, 4,480 ft³/s (127 m³/s) Apr. 8.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

5.0	3,300	8.0	9,160
6.0	5,000	10.0	14,100
7.0	6,980	12.0	19,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8510	10200	14400	10100	10400	8290	6470	4970	5480	5130	5570	5910
2	8730	9610	15200	10100	10000	9040	7830	5200	5250	5160	5660	5680
3	9090	9870	15700	10300	9840	9170	6570	5160	5230	5230	5600	5770
4	9000	9940	15100	9650	9790	9030	8070	5200	5260	5340	5540	5820
5	9420	10100	14700	10200	9620	9870	6030	5320	5280	5360	5620	5800
6	10000	9940	14200	10100	9680	9540	5980	5500	5490	5370	5590	5800
7	10600	10000	13900	10200	9560	9120	5440	5610	5220	5280	5750	5830
8	10700	10100	13600	9700	9490	9520	4480	5570	5290	5470	5680	5720
9	10800	9770	13300	9630	9200	9750	4850	5610	5420	5200	5690	5750
10	10700	9770	12400	10000	9030	9310	5280	5480	5640	5280	5620	5710
11	10600	9870	12100	9440	9940	9430	5300	5550	5760	5330	5580	5730
12	12000	10100	11500	9210	10200	9160	5120	5590	5840	5250	5500	5700
13	11900	10200	11200	8770	9490	8890	5060	5470	5940	5130	5590	5740
14	11800	10400	11300	9960	9310	9550	5260	5250	6050	5160	5540	5710
15	11400	10300	10600	9610	9550	8960	5420	5410	6020	5240	5560	5810
16	11300	10200	10300	9560	9250	8540	5270	5390	5860	5190	5450	5770
17	10600	10200	10600	9820	8860	9100	5120	5380	5770	5160	5400	5910
18	10300	10500	10400	9960	9590	7640	5170	5020	5670	5240	5320	5950
19	10300	10000	10400	9920	7980	5870	5090	5610	5570	5130	5480	5890
20	10600	10300	10300	9820	7520	6230	5270	5060	5600	5210	5420	6000
21	9650	10200	10200	9890	8240	6400	5230	5520	5510	5240	5450	6050
22	9630	10100	10200	9800	8220	8090	5210	5610	5440	5250	5520	6110
23	9420	9990	10400	9990	7980	7570	5150	5730	5430	5300	5490	6260
24	9470	10300	10300	10100	6900	7420	5060	5900	5290	5420	5390	6200
25	9540	11100	10200	10100	7050	7220	5120	5920	5230	5660	5600	6270
26	9420	11700	10200	10400	9000	5930	5040	5820	5200	5710	5750	6250
27	9680	11900	10200	10500	8750	7910	5060	5890	5140	5550	5890	6300
28	9870	11600	10100	10500	9550	7720	5070	5830	5190	5550	5870	6120
29	9940	12400	10300	10500	---	7460	4980	5860	5000	5570	5810	6120
30	9940	13100	10100	10500	---	6700	5010	5830	5120	5450	5800	6110
31	9960	---	10100	10600	---	6730	---	5000	---	5570	5900	---
TOTAL	315070	313760	363700	308930	253990	255160	164010	172060	164190	165130	173630	177790
MEAN	10160	10460	11730	9965	9071	8231	5467	5550	5473	5327	5601	5926
MAX	12000	13100	15700	10600	10400	9870	8070	5920	6050	5710	5900	6300
MIN	8510	9610	10100	8770	6900	5870	4480	4970	5000	5130	5320	5680
AC-FT	624900	622300	721400	612800	503800	506100	325300	341300	325700	327500	344400	352600

CAL YR 1976 TOTAL 4738350 MEAN 12950 MAX 24600 MIN 5170 AC-FT 9399000
WTR YR 1977 TOTAL 2827420 MEAN 7746 MAX 15700 MIN 4480 AC-FT 5608000

13139500 BIG WOOD RIVER AT HAILEY, ID

LOCATION.--Lat 43°31'02", long 114°19'14", in SW¼NE¼SW¼ sec.9, T.2 N., R.18 E., Blaine County, Hydrologic Unit 17040219, on left bank 15 ft (4.6 m) upstream from county road crossing, 0.2 mi (0.3 km) southwest of Hailey, 0.4 mi (0.6 km) upstream from Croy Creek, and at mile 91.0 (146.4 km).

DRAINAGE AREA.--640 mi² (1,660 km²), approximately. Mean altitude, 7,620 ft (2,323 m).

PERIOD OF RECORD.--July to December 1889, June 1915 to current year. Published as Wood River at Hailey in 1889. Previously published as Big Wood River and Big Wood Slough combined discharge.

GAGE.--Water-stage recorder. Datum of gage is 5,295.42 ft (1,614.044 m) above mean sea level (unadjusted). Nov. 16, 1934, to Oct. 15, 1970, at datum 2.00 ft (0.610 m) higher. July to December 1889 nonrecording gage at nearby site at different datum. June 11, 1915, to Nov. 15, 1934, nonrecording gages at present site at different datum. Nov. 10, 1971, to Sept. 30, 1972, nonrecording gages at different sites at present datum.

REMARKS.--Records good. Diversions above station for irrigation of about 10,000 acres or 4,000 hm² (1966 determination) of which about 1,200 acres (490 hm²) are below station. Storage above station is negligible.

AVERAGE DISCHARGE.--62 years, 378 ft³/s (10.70 m³/s), 273,900 acre-ft/yr (338 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,970 ft³/s (141 m³/s) about June 16, 1974 (gage height, 7.20 ft or 2.195 m, from floodmark); maximum gage height, 10.66 ft (3.249 m), present datum, June 12, 1921; no flow Sept. 15-23, Nov. 20, 22, 23, 1931, Oct. 25, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft³/s (35.7 m³/s) June 10 (gage height, 3.62 ft or 1.103 m); minimum discharge, 112 ft³/s (3.17 m³/s) Nov. 28, Feb. 25; minimum gage height, 1.03 ft (0.314 m) Sept. 8, 9.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 6-15, 28-30)

0.9	101	2.2	466
1.0	116	2.7	695
1.2	151	3.2	961
1.7	278	3.7	1,280

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	207	151	150	142	135	139	164	288	259	178	139
2	262	207	150	148	140	130	138	162	553	253	171	135
3	301	203	149	160	135	128	138	160	530	272	169	133
4	285	203	154	153	136	124	142	158	594	405	167	130
5	275	201	157	156	135	125	149	151	772	509	167	130
6	269	202	150	147	136	128	152	149	916	385	174	124
7	259	205	157	140	132	132	146	156	916	333	169	123
8	250	200	165	134	133	130	142	160	1010	305	178	121
9	247	200	168	133	134	134	150	162	922	285	180	126
10	244	197	157	134	133	130	144	176	1120	278	165	130
11	241	197	151	140	134	126	142	176	994	259	155	130
12	238	193	151	145	134	133	148	164	825	241	153	131
13	241	180	153	145	134	138	152	167	711	226	147	131
14	238	174	154	145	133	127	153	185	661	220	146	135
15	232	190	154	148	131	129	147	201	575	208	146	140
16	232	193	156	153	131	133	151	208	509	200	144	144
17	232	190	155	149	131	138	154	202	466	191	142	144
18	229	188	150	149	131	131	153	198	449	184	142	146
19	226	184	143	148	131	134	150	193	429	178	144	146
20	229	180	138	146	131	129	149	187	462	176	140	149
21	229	179	142	145	136	136	148	185	466	176	137	155
22	220	184	151	146	132	140	148	183	413	187	144	157
23	224	178	154	140	127	142	153	207	393	198	139	157
24	218	175	153	132	123	140	152	268	373	213	139	155
25	219	182	151	137	121	136	155	302	366	319	144	157
26	217	163	158	134	129	137	159	297	340	265	149	153
27	213	139	159	136	123	143	166	300	319	244	144	147
28	212	128	151	132	134	139	166	279	305	218	142	147
29	211	135	144	130	---	137	166	261	281	200	140	149
30	210	143	144	134	---	141	164	247	272	189	135	163
31	208	---	146	142	---	139	---	238	---	182	140	---
TOTAL	7376	5500	4716	4431	3702	4144	4518	6246	17230	7758	4730	4227
MEAN	238	183	152	143	132	134	151	201	574	250	153	141
MAX	301	207	168	160	142	143	166	302	1120	509	180	163
MIN	208	128	138	130	121	124	138	149	272	176	135	121
AC-FT	14630	10910	9350	8790	7340	8220	8960	12390	34180	15390	9380	8380

CAL YR 1976 TOTAL 164402 MEAN 449 MAX 1960 MIN 128 AC-FT 326100
WTR YR 1977 TOTAL 74578 MEAN 204 MAX 1120 MIN 121 AC-FT 147900

13139500 BIG WOOD RIVER AT HAILEY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1977.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.
INSTRUMENTATION.--Temperature recorder since May 19, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT 21...	1600	231	290	13.5	9.5
DEC 01...	1030	154	201	-2.0	2.0
JAN 14...	0955	146	280	-5.0	.5
MAR 09...	1100	134	272	1.0	3.0
APR 14...	1615	151	207	1.5	9.0
MAY 19...	1110	195	279	13.0	8.5
JUN 14...	1515	614	115	22.5	12.0
JUL 24...	1500	215	274	20.0	13.0
AUG 27...	1630	147	--	18.5	13.5
SEP 22...	1430	150	289	13.1	9.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	15.5	9.5	14.5	11.0	18.0	11.0	15.0	8.5
2			---	---	13.0	9.0	15.0	11.0	17.0	12.0	15.5	9.0
3			---	---	13.5	8.0	13.5	10.5	19.0	13.0	16.0	10.0
4			---	---	14.5	8.5	12.5	10.5	16.5	11.5	16.0	10.0
5			---	---	15.0	8.5	15.5	9.0	15.5	11.5	16.5	10.0
6			---	---	15.0	9.0	15.5	9.5	16.5	11.0	16.5	10.5
7			---	---	13.5	9.5	16.0	9.5	16.5	12.0	16.5	10.5
8			---	---	14.0	9.0	16.0	10.0	16.0	11.0	15.5	10.5
9			---	---	11.0	9.0	16.0	10.0	17.5	10.5	15.0	8.5
10			---	---	10.5	8.0	16.5	10.0	16.5	11.0	15.0	9.0
11			---	---	11.5	8.0	17.0	10.0	18.0	11.0	14.5	9.5
12			---	---	13.0	7.5	17.5	10.5	18.0	11.0	15.0	9.5
13			---	---	13.0	9.5	17.0	11.0	17.5	11.5	15.0	9.0
14			---	---	12.0	9.0	17.5	10.0	15.5	11.5	12.5	9.5
15			---	---	14.0	7.5	18.0	10.5	18.0	11.0	14.5	10.0
16			---	---	14.5	8.5	18.5	11.5	18.0	11.0	12.0	9.5
17			---	---	15.0	8.5	18.0	11.0	16.0	12.0	13.5	9.5
18			---	---	14.5	10.0	18.5	11.5	18.5	13.0	12.5	8.0
19			10.5	9.0	14.5	10.0	18.0	11.0	18.5	12.0	11.5	9.0
20			11.0	6.0	14.0	9.0	17.0	11.5	17.5	11.5	11.0	8.5
21			12.0	6.5	14.0	9.0	18.0	12.5	17.5	12.0	10.5	7.5
22			11.0	7.0	16.5	9.5	18.5	13.0	18.0	11.5	9.5	7.0
23			9.5	8.0	16.0	10.5	17.0	12.5	17.5	10.5	10.0	6.5
24			8.5	7.5	17.5	10.5	14.5	13.0	15.5	11.5	11.5	8.0
25			11.5	7.5	18.0	11.5	17.5	11.0	12.5	11.0	11.5	8.0
26			10.5	7.0	17.5	11.0	18.0	11.5	15.5	10.5	12.5	7.5
27			12.5	7.0	17.0	11.0	18.0	11.5	13.5	9.0	13.0	8.0
28			11.5	5.5	17.0	10.5	18.5	11.5	14.0	9.0	12.0	8.5
29			10.5	6.0	17.0	10.5	18.0	11.0	16.0	10.5	10.5	9.5
30			13.5	6.0	17.0	10.0	17.5	10.5	15.0	10.0	9.5	7.5
31			15.5	8.0	---	---	18.0	11.0	13.5	9.0	---	---
MONTH			15.5	5.5	18.0	7.5	18.5	9.0	19.0	9.0	16.5	6.5
YEAR	19.0	5.5										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

13141000 BIG WOOD RIVER NEAR BELLEVUE, ID

LOCATION.--Lat 43°19'40", long 114°20'25", in NW¼NE¼ sec.20, T.1 S., R.18 E., Blaine County, Hydrologic Unit 17040219, on right bank at downstream end of Mahoney Flat, 1.5 mi (2.4 km) upstream from maximum flow line of Magic Reservoir, 2.8 mi (4.5 km) upstream from Camas Creek, 10.5 mi (16.9 km) southwest of Bellevue, and at mile 76.0 (122.3 km).

DRAINAGE AREA.--924 mi² (2,134 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1911 to current year (no winter records prior to October 1943 except water years 1916, 1921-22, 1940-41).

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft or 1,463 m (from topographic map). Prior to July 8, 1921, at site 0.1 mi (0.2 km) downstream at different datum. July 8, 1921, to Oct. 5, 1954, at site 0.2 mi (0.3 km) upstream at different datum. Oct. 6, 1954, to Oct. 25, 1965, at site 1 mi (1.6 km) upstream at different datum.

REMARKS.--Records fair. Diversions above station for irrigation of about 21,800 acres (8,800 hm²) of which about 400 acres (160 hm²) are by withdrawals from ground water (1966 determination). Storage above station is negligible.

COOPERATION.--Recorder inspected by employees of Water District 37.

AVERAGE DISCHARGE.--39 years (1916, 1922, 1940-41, 1943-77), 302 ft³/s (8.553 m³/s), 218,800 acre-ft/yr (276 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,130 ft³/s (117 m³/s) May 25, 1956; maximum gage height, 6.43 ft (1.960 m) May 12, 1958, site and datum then in use; minimum discharge recorded, 7 ft³/s (0.20 m³/s) Apr. 14, 1932 (gage height, 1.10 ft (0.335 m), site and datum then in use).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 315 ft³/s (8.92 m³/s) June 10, 11 (gage height, 3.79 ft or 1.155 m); minimum daily, 36 ft³/s (1.02 m³/s) Sept. 11-14; minimum gage height, 2.68 ft (0.817 m) Sept. 11, 12, 14.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 24, Dec. 1, 2, 8-20, Jan. 4-13, 29, 30, Feb. 3-7)

2.6	30	3.2	103
2.7	37	3.4	152
2.8	46	3.6	224
3.0	70	3.8	320

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	74	72	58	44	40	57	47	49	55	44	41
2	96	74	74	58	43	40	57	47	47	57	45	41
3	96	74	70	56	43	41	56	46	47	58	44	41
4	94	74	67	57	43	41	53	47	46	65	43	41
5	94	77	66	56	42	41	51	46	58	82	44	41
6	98	80	69	55	41	41	51	51	125	76	47	40
7	98	80	69	50	41	42	51	56	125	66	46	41
8	94	83	70	46	41	43	49	57	172	63	48	39
9	90	83	73	44	41	50	47	56	189	58	47	38
10	85	83	70	46	41	50	47	56	279	56	46	37
11	82	83	68	47	41	49	47	57	289	54	45	36
12	79	82	68	48	41	50	47	55	237	50	44	36
13	79	79	68	46	41	51	47	51	178	49	43	36
14	77	76	70	44	41	51	48	49	152	50	43	36
15	76	76	70	49	41	53	44	47	136	51	43	37
16	76	77	70	49	41	54	41	47	110	51	42	37
17	74	79	72	49	42	54	40	47	90	49	42	39
18	74	77	70	49	43	55	41	54	92	48	41	40
19	74	77	68	49	44	56	43	56	77	47	41	40
20	74	76	65	48	44	55	43	56	87	46	41	40
21	74	76	61	48	45	56	44	54	89	49	40	41
22	74	77	60	48	42	57	45	51	74	49	39	41
23	74	76	62	47	41	58	45	55	69	53	39	41
24	74	76	61	47	40	60	47	60	65	58	39	41
25	74	74	58	47	40	60	47	60	62	61	40	40
26	74	70	62	47	40	57	45	55	58	56	44	40
27	74	66	66	46	40	57	46	57	56	51	44	39
28	74	65	66	45	40	58	46	54	55	53	42	39
29	74	66	63	46	---	60	45	51	56	49	40	39
30	74	68	63	46	---	58	46	50	54	47	40	40
31	74	---	61	44	---	58	---	49	---	45	40	---
TOTAL	2518	2278	2072	1524	1167	1596	1416	1632	3211	1702	1326	1178
MEAN	81.2	75.9	66.8	49.2	41.7	51.5	47.2	52.6	107	54.9	42.8	39.3
MAX	98	83	74	58	45	60	57	60	289	82	48	41
MIN	74	65	58	44	40	40	40	47	46	45	39	36
AC-FT	4990	4520	4110	3020	2310	3170	2810	3240	6370	3380	2630	2340

CAL YR 1976 TOTAL 92650 MEAN 253 MAX 1390 MIN 58 AC-FT 183800
WTR YR 1977 TOTAL 21620 MEAN 59.2 MAX 289 MIN 36 AC-FT 42880

13141000 BIG WOOD RIVER NEAR BELLEVUE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1974, 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973, 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 21...	0840	73	367	8.1	-6.5	6.0	--	180	9
DEC 02...	0955	73	357	--	-4.0	3.5	0	--	--
JAN 14...	1300	50	356	--	-1.0	2.5	3	--	--
MAR 08...	1410	43	336	--	10.5	9.5	0	--	--
APR 14...	1230	47	263	--	17.0	8.0	2	--	--
MAY 19...	0745	56	278	--	6.0	6.5	0	--	--
JUN 14...	1250	165	313	--	23.0	15.0	90	--	--
JUL 21...	1400	47	351	--	26.5	20.5	0	--	--
AUG 25...	1325	38	372	8.3	11.5	13.5	--	180	12
SEP 25...	1425	41	342	--	16.0	14.5	--	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 21...	56	10	4.8	5	.2	1.4	210	0	172
DEC 02...	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--
JUL 21...	--	--	--	--	--	--	--	--	--
AUG 25...	54	10	5.5	6	.2	1.5	200	0	160
SEP 25...	--	--	--	--	--	--	--	--	--

13141000 BIG WOOD RIVER NEAR BELLEVUE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT 21...	15	2.0	.4	14	207	.28	40.8	.08	.00
DEC 02...	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--
JUL 21...	--	--	--	--	--	--	--	--	--
AUG 25...	19	2.1	.4	17	208	.28	21.3	.06	.02
SEP 25...	--	--	--	--	--	--	--	--	--

13141500 CAMAS CREEK NEAR BLAINE, ID

LOCATION.--Lat 43°19'59", long 114°32'27", in NW¼SE¼ sec.15, T.1 S., R.16 E., Camas County, Hydrologic Unit 17040220, on left bank 0.2 mi (0.3 km) north of Macon siding on Hill City branch of Union Pacific Railroad, 0.2 mi (0.3 km) downstream from Willow Creek, 2.6 mi (4.2 km) upstream from maximum flow line of Magic Reservoir, 4 mi (6.4 km) southeast of Blaine, and at mile 7.0 (11.3 km).

DRAINAGE AREA.--648 mi² (1,678 km²). Mean altitude, 5,600 ft (1,707 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1912 to September 1921 and April 1923 to October 1925 (fragmentary), March 1926 to September 1944 (no winter records), October 1944 to current year. Published as Malad River near Blaine 1912-14.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,870 ft or 1,484 m (by barometer). Prior to June 22, 1966, at site 600 ft (183 m) downstream at datum 0.66 ft (0.20 m) lower.

REMARKS.--Records good. Flow regulated by Mormon Reservoir on McKinney Creek, capacity, 31,240 acre-ft (38.5 hm³), and three minor reservoirs, combined capacity, 580 acre-ft (0.72 hm³). Diversions above station for irrigation of about 9,400 acres (3,800 hm²) of which about 1,500 acres (610 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--33 years, 185 ft³/s (5.239 m³/s), 134,000 acre-ft/yr (165 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 9,780 ft³/s (277 m³/s) Apr. 8, 1943; maximum gage height, 16.2 ft or 4.94 m (site and datum then in use) Feb. 3, 1963, from floodmark; minimum discharge recorded, 1.2 ft³/s (34 dm³/s) Aug. 11, 12, 1959; minimum gage height, 1.04 ft or 0.317 m (site and datum then in use) Aug. 23, 25, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 67 ft³/s (1.90 m³/s) July 22 (gage height, 3.92 ft or 1.195 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum, 2.2 ft³/s (62.3 dm³/s) Sept. 8 (gage height, 2.94 ft or 0.896 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.9	1.9	3.3	12
3.0	3.3	3.5	24
3.1	5.3	3.7	41
3.2	8.3	4.0	77

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	14	13	18	26	31	4.2	8.7	3.7	2.6	2.3
2	13	13	15	14	16	24	31	4.1	6.7	3.5	2.6	2.7
3	13	13	15	15	16	25	31	4.1	5.3	3.5	2.6	2.5
4	13	13	16	13	17	25	33	4.1	5.3	3.9	2.6	2.6
5	13	13	17	15	16	26	27	4.2	5.1	3.7	2.6	2.5
6	13	13	15	12	17	27	27	4.4	5.1	4.6	2.6	2.5
7	13	13	18	13	17	28	34	5.3	6.1	6.4	2.6	2.6
8	13	13	14	13	17	30	38	6.7	6.1	4.9	2.6	2.3
9	13	13	15	14	18	33	37	8.0	6.4	3.9	2.6	2.3
10	12	13	18	14	18	32	34	11	9.5	3.7	2.6	2.5
11	12	14	18	14	18	33	34	17	11	3.7	2.6	2.3
12	12	15	17	14	18	36	32	20	8.3	3.7	2.6	2.5
13	12	15	18	15	19	33	24	16	6.7	3.7	2.6	2.6
14	13	15	17	15	21	29	19	17	5.6	3.7	2.6	2.6
15	12	16	17	15	22	29	17	14	5.6	3.7	2.6	2.6
16	12	16	17	15	24	31	15	13	5.6	3.5	2.6	2.6
17	12	16	16	15	25	31	13	15	5.3	3.5	2.6	2.6
18	11	17	16	15	27	27	11	19	5.3	3.3	2.5	2.6
19	11	20	15	17	28	30	10	16	4.9	3.2	2.5	2.6
20	12	18	14	17	30	27	9.5	17	5.6	3.2	2.5	2.6
21	13	18	13	17	32	28	9.1	16	5.3	3.2	2.5	2.6
22	13	18	13	17	31	31	7.6	15	4.9	7.3	2.5	2.6
23	12	19	14	15	27	37	6.7	16	4.4	7.0	2.5	2.6
24	12	18	13	18	29	39	6.4	20	4.2	4.2	2.5	2.6
25	13	19	13	17	27	39	6.1	22	4.1	3.9	2.6	2.6
26	13	18	15	16	25	37	5.1	20	3.9	3.3	2.5	2.6
27	12	15	15	18	24	37	4.4	21	3.9	3.0	2.5	2.6
28	12	14	13	17	26	33	4.2	16	3.9	3.0	2.5	2.6
29	13	15	13	15	---	31	4.1	17	3.7	2.9	2.5	2.6
30	13	15	13	16	---	34	4.2	17	3.7	2.7	2.5	2.6
31	13	---	13	17	---	31	---	16	---	2.7	2.3	---
TOTAL	387	461	478	473	623	959	569.4	422.1	170.2	120.2	79.1	76.4
MEAN	12.5	15.4	15.4	15.3	22.3	30.9	19.0	13.6	5.67	3.88	2.55	2.55
MAX	13	20	18	18	32	39	38	22	11	7.3	2.6	2.7
MIN	11	13	13	12	16	24	4.1	4.1	3.7	2.7	2.3	2.3
CFSM	.02	.02	.02	.02	.03	.05	.03	.02	.009	.006	.004	.004
IN.	.02	.03	.03	.03	.04	.05	.03	.02	.01	.01	.00	.00
AC-FT	768	914	948	938	1240	1900	1130	837	338	238	157	152

CAL YR 1976 TOTAL 58320.4 MEAN 159 MAX 4810 MIN 4.4 CFSM .25 IN 3.35 AC-FT 115700
WTR YR 1977 TOTAL 4818.4 MEAN 13.2 MAX 39 MIN 2.3 CFSM .02 IN .28 AC-FT 9560

13141500 CAMAS CREEK NEAR BLAINE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1974 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
19...	1630	12	249	8.5	16.0	10.5	--	100	0
NOV									
30...	1440	14	256	--	3.0	2.5	0	--	--
JAN									
11...	1140	14	314	--	-8.5	1.0	0	--	--
MAR									
08...	1230	29	196	--	7.0	4.0	0	--	--
APR									
14...	1020	18	195	--	7.5	12.0	2	--	--
MAY									
16...	1440	13	240	--	10.5	11.5	3	--	--
20...	1515	16	219	--	--	16.0	--	--	--
21...	1145	16	236	--	17.5	13.5	--	--	--
JUN									
13...	1530	7.1	235	--	24.0	20.0	1	--	--
JUL									
21...	1230	3.2	231	--	28.0	21.0	0	--	--
AUG									
12...	0845	2.6	224	7.9	19.0	10.5	--	82	1
25...	0930	2.7	205	--	10.0	11.0	2	--	--
SEP									
25...	1115	2.6	211	--	10.0	11.0	3	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT									
19...	31	5.4	11	19	.5	1.7	140	0	115
NOV									
30...	--	--	--	--	--	--	--	--	--
JAN									
11...	--	--	--	--	--	--	--	--	--
MAR									
08...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
MAY									
16...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUN									
13...	--	--	--	--	--	--	--	--	--
JUL									
21...	--	--	--	--	--	--	--	--	--
AUG									
12...	23	5.9	13	25	.6	1.4	99	0	81
25...	--	--	--	--	--	--	--	--	--
SEP									
25...	--	--	--	--	--	--	--	--	--

13141500 CAMAS CREEK NEAR BLAINE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT									
19...	5.5	2.9	.3	20	151	.21	4.89	1.0	.02
NOV									
30...	--	--	--	--	--	--	--	--	--
JAN									
11...	--	--	--	--	--	--	--	--	--
MAR									
08...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
MAY									
16...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUN									
13...	--	--	--	--	--	--	--	--	--
JUL									
21...	--	--	--	--	--	--	--	--	--
AUG									
12...	4.3	3.9	.4	32	133	.18	.93	--	.05
25...	--	--	--	--	--	--	--	--	--
SEP									
25...	--	--	--	--	--	--	--	--	--

13142000 MAGIC RESERVOIR NEAR RICHFIELD, ID

LOCATION.--Lat 43°15'19", long 114°21'25", in SE¼NE¼NE¼ sec.18, T.2 S., R.18 E., Blaine County, Hydrologic Unit 17040219, at Magic Dam on Big Wood River, 18 mi (29 km) northwest of Richfield, and at mile 67.5 (108.6 km).

DRAINAGE AREA.--1,600 mi² (4,140 km²), approximately.

PERIOD OF RECORD.--February 1909 to current year. Monthend contents only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 4,000 ft (1,219 m) above datum of Idaho Irrigation Co., which is reported to be about 137 ft (42 m) below mean sea level datum. Datum of gages prior to Oct. 1, 1942, was 4,000 ft (1,219 m) lower. Datum of gages Oct. 1, 1942, to Sept. 30, 1974, was 800 ft (244 m) higher.

REMARKS.--Reservoir is formed by earth- and rock-fill dam, completed in 1909, and raised 5 ft (1.5 m) in 1917. Capacity is 191,500 acre-ft (236 hm³) between gage heights 821.4 ft or 250.36 m (2.9 ft above bottom of outlet pipe) and 935.0 ft or 285.0 m (top of 5-ft flashboards). Dead storage unknown. Water is used for irrigation of about 68,000 acres (27,500 hm²) of land in Carey Act project of Big Wood Canal Co. Diversions above station for irrigation of about 32,600 acres (13,200 hm²) of which about 1,900 acres (769 hm²) are by withdrawals from ground water (1966 determination). Figures given herein represent usable contents including bank storage. Gage read in the morning.

COOPERATION.--Gage readings and capacity table furnished by Water District 37.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 195,400 acre-ft (241 hm³) May 11-13, 1969 (gage height, 936.0 ft or 285.29 m, present datum); no storage for several days in 1909, 1919-20, 1924, 1928, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 84,400 acre-ft (104 hm³) Apr. 30 (gage height, 898.5 ft or 273.86 m); minimum observed, 2,040 acre-ft (2.52 hm³) Aug. 12 (gage height, 834.7 ft or 254.42 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

834	1,860	870	31,200
840	3,660	880	47,700
850	9,190	890	66,800
860	18,400	900	87,700

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47500	54000	58000	63800	69200	74000	80100	84000	57000	21300	7280	4140
2	47700	54200	58200	64000	69400	74300	80300	83100	56800	19800	7410	4230
3	47900	54500	58400	64200	69600	74500	80500	81600	55900	18500	7600	4310
4	48100	54700	58500	64400	69800	74500	80700	80300	54500	17100	7860	4400
5	48200	54900	58700	64800	70000	74700	80900	79000	53200	15800	8070	4530
6	48600	55100	58900	65000	70000	74900	81200	78000	52300	14600	8200	4620
7	48600	55300	59100	65000	70200	75100	81400	76700	50800	13600	7540	4710
8	49200	55500	59300	65200	70400	75100	81400	73600	49900	11100	6490	4810
9	49500	55900	59500	65200	70400	75500	81600	72600	48600	10700	5340	4900
10	49700	56200	59700	65200	70600	75500	82000	73600	47700	9190	2960	4990
11	49900	56400	59900	65200	70800	75700	82200	72600	47000	7800	2300	5090
12	50100	56600	60300	65200	71000	75900	82500	71400	46100	6430	2040	5190
13	50300	56800	60500	65200	71200	76300	82700	70400	45200	5040	2170	5290
14	50400	56200	60700	66200	71400	76300	82700	69200	44000	3620	2270	5390
15	50600	55700	60700	66400	71600	76500	82900	66200	42600	3230	2490	5490
16	51000	54700	60900	66600	71600	76700	83100	67000	41600	3480	2720	5550
17	51200	54700	61100	67000	71800	76900	83100	65800	40200	3660	2930	5650
18	51400	54900	61300	67200	72000	77100	83100	64800	38900	3660	3030	5760
19	51500	55300	61500	67200	72200	77400	83100	63800	37600	4230	3160	5240
20	51700	55500	61700	67400	72400	77600	83300	62600	36100	4480	3230	5040
21	51900	55700	62000	67600	72600	77800	83300	61700	34900	4670	3300	4850
22	52100	55900	62200	67800	72600	78000	83500	60700	33600	4990	3330	4400
23	52300	56200	62400	67800	73000	78400	83500	59900	32300	5190	3400	3900
24	52500	56400	62400	68000	73200	78400	83800	58900	30900	5440	3480	3160
25	52700	56600	62600	68200	73200	78600	83800	58000	29600	5710	3590	3230
26	52800	56800	63000	68200	73400	78800	84000	57200	28200	5920	3660	3330
27	53000	57200	63200	68400	73600	79000	84000	55900	26700	6150	3740	3400
28	53200	57400	63200	68600	73600	79200	84200	56200	25400	6490	3820	3510
29	53400	57600	63400	68800	---	79500	84200	56400	23800	6600	3900	3620
30	53600	57800	63600	69000	---	79700	84400	56600	22700	6790	3980	3700
31	53800	---	63800	69000	---	79900	---	56800	---	7030	4060	---
MAX	53800	57800	63800	69000	73600	79900	84400	84000	57000	21300	8200	5760
MIN	47500	54000	58000	63800	69200	74000	80100	55900	22700	3230	2040	3160
(†)	883.3	885.4	888.5	891.1	893.5	896.4	898.5	884.9	863.7	846.8	841.0	840.1
(‡)	+6500	+4000	+6000	+5200	+4800	+6100	+4500	-27600	-34100	-15670	-2970	-360

CAL YR 1976............ ‡ -51700
WTR YR 1977............ ‡ -43600

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

13142500 BIG WOOD RIVER BELOW MAGIC DAM, NEAR RICHFIELD, ID

LOCATION.--Lat 43°15'00", long 114°21'30", in NE¼SE¼ sec.18, T.2 S., R.18 E., Blaine County, Hydrologic Unit 17040219, Bureau of Land Management lands, on right bank 0.5 mi (0.8 km) downstream from Magic Dam, 18 mi (28.9 km) northwest of Richfield, and at mile 67.0 (107.8 m).

DRAINAGE AREA.--1,600 mi² (4,140 km²), approximately.

PERIOD OF RECORD.--April 1911 to current year (no winter records 1912).

GAGE.--Water-stage recorder. Altitude of gage is 4,665 ft or 1,422 m (by barometer).

REMARKS.--Records good. Flow regulated by Magic Reservoir 0.5 mi (0.8 km) upstream (see sta 13142000), Mormon Reservoir on tributary of Camas Creek (capacity, 31,240 acre-ft or 38.5 hm³), and smaller reservoirs having combined capacity of about 680 acre-ft (0.838 hm³). Diversions above station for irrigation of about 32,600 acres (13,190 hm²) of which about 1,900 acres (770 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--65 years (1913-77), 462 ft³/s (13.08 m³/s), 334,700 acre-ft/yr (413 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s (283 m³/s) Apr. 26, 1952 (gage height, 15.68 ft or 4.78 m, from floodmark); no flow Feb. 3, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 889 ft³/s (25.2 m³/s) July 3 (gage height, 4.43 ft or 1.350 m); minimum daily, 1.4 ft³/s (0.040 m³/s) Aug. 5; minimum gage height, 1.64 ft or 0.500 m.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 12, July 15 to Aug. 5)

1.6	0.4	2.2	33
1.7	2.0	2.5	74
1.8	4.8	3.0	187
1.9	9.0	3.5	359
2.0	15	4.5	918

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.5	5.6	5.2	5.6	7.3	6.9	510	30	761	2.0	2.0
2	4.5	4.2	5.2	5.6	5.6	7.7	6.9	682	408	768	1.8	2.0
3	4.8	4.0	5.6	5.6	5.2	8.2	6.9	743	658	787	1.5	1.8
4	5.2	4.0	5.6	5.2	5.2	7.7	6.9	724	652	780	1.5	1.7
5	5.2	3.7	5.6	5.2	5.2	7.7	7.3	712	670	780	1.4	1.7
6	6.1	3.7	5.6	5.2	5.2	7.7	7.3	676	682	768	112	1.7
7	6.5	3.7	5.6	5.2	5.2	7.3	7.3	658	688	780	505	1.5
8	6.9	3.4	5.6	5.2	5.6	7.7	7.3	652	700	774	531	1.7
9	7.7	3.4	5.2	4.8	5.6	7.3	6.9	635	724	761	569	1.7
10	8.2	3.1	5.6	5.2	5.6	6.9	7.3	624	724	761	455	1.5
11	8.7	5.2	5.2	5.2	5.6	7.3	6.9	618	724	780	261	1.5
12	8.7	4.8	5.6	5.2	5.6	7.3	7.3	613	743	774	94	1.7
13	8.7	190	5.6	5.2	6.1	6.9	6.9	618	749	774	3.1	1.7
14	8.7	422	5.6	5.2	6.1	6.9	6.9	635	743	505	3.1	1.7
15	8.2	490	5.6	4.8	6.5	6.9	6.9	641	736	3.4	3.4	1.7
16	7.7	352	5.6	4.8	6.5	7.3	6.9	641	736	2.8	3.7	1.7
17	7.7	6.1	5.2	4.8	6.9	6.9	6.9	635	749	2.8	3.7	1.7
18	7.3	5.6	5.2	4.8	6.9	6.5	6.9	607	761	3.7	3.7	137
19	6.9	5.6	5.2	4.8	7.3	6.5	6.9	596	755	4.8	3.7	198
20	6.9	5.6	5.2	4.8	7.3	6.5	6.9	579	730	5.6	3.4	144
21	6.9	5.6	5.6	4.8	7.3	6.9	6.9	558	736	6.1	3.1	279
22	6.5	5.6	5.6	5.2	6.9	6.9	7.3	558	743	6.1	2.8	390
23	6.1	5.6	5.2	5.2	7.3	6.9	7.3	558	736	5.6	2.8	399
24	6.1	5.6	5.2	5.2	7.3	6.9	7.3	558	736	4.8	2.3	241
25	5.2	5.2	5.2	5.2	7.3	6.9	7.3	552	769	5.6	2.6	50
26	5.2	5.6	5.2	5.2	6.9	6.5	7.3	552	749	4.2	2.3	1.7
27	4.8	5.6	5.2	5.2	6.9	6.1	7.3	238	755	3.7	2.3	1.7
28	4.8	5.6	5.2	5.2	7.3	6.5	7.3	12	749	3.1	2.0	1.7
29	4.8	5.6	5.2	5.2	---	6.9	6.9	12	743	2.6	2.0	1.7
30	4.8	5.6	5.2	5.2	---	6.9	117	13	774	2.3	1.8	1.5
31	4.5	---	5.2	5.6	---	6.5	---	12	---	2.0	2.0	---
TOTAL	198.8	1580.2	167.2	159.2	176.0	218.4	322.3	16427	20851	10622.2	2589.0	1875.3
MEAN	6.41	52.7	5.39	5.14	6.29	7.05	10.7	530	695	343	83.5	62.5
MAX	8.7	490	5.6	5.6	7.3	8.2	117	743	774	787	569	399
MIN	4.5	3.1	5.2	4.8	5.2	6.1	6.9	12	30	2.0	1.4	1.5
AC-FT	394	3130	332	316	349	433	639	32580	41360	21070	5140	3720

CAL YR 1976 TOTAL 185862.8 MEAN 508 MAX 2110 MIN 3.1 AC-FT 368700
WTR YR 1977 TOTAL 55186.6 MEAN 151 MAX 787 MIN 1.4 AC-FT 109500

13148200 LITTLE WOOD RESERVOIR NEAR CAREY, ID

LOCATION.--Lat 43°25'30", long 114°01'30", in SW¼ sec.12, T.1 N., R.20 E., Blaine County, Hydrologic Unit 17040221, at gate-control structure near right end of Little Wood Dam on Little Wood River, 8.5 mi (13.7 km) northwest of Carey, and at mile 78.8 (126.8 km).

DRAINAGE AREA.--279 mi² (723 km²).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Nonrecording gage. Datum of gage is 5,100 ft (1,554 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earth- and rock-fill dam constructed in 1939 and raised 39.9 ft (12.2 m) in 1959. Storage began Feb. 12, 1941. Capacity of reservoir is 29,960 acre-ft (36.9 hm³) between gage heights 27.4 or 8.4 m (0.4 ft or 0.1 m below bottom of outlet gates) and 137.3 ft or 41.8 m (spillway crest). Water is used for irrigation of land near Carey. Contents shown for days when readings were furnished and at monthend. Readings are made at various times of the day.

COOPERATION.--Gage readings furnished by Water District 37N. Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 30,940 acre-ft (38.1 hm³) June 10, 1963 (gage height, 138.99 ft or 42.364 m); minimum observed, 66 acre-ft (0.081 hm³) Aug. 17, 1959 (gage height, 30.22 ft or 9.211 m), but may have been less during period Aug. 14 to Sept. 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 17,200 acre-ft (21.2 hm³) Apr. 22 (gage height, 112.00 ft or 34.138 m); minimum contents observed, 286 acre-ft (0.353 hm³) Aug. 27 (gage height, 36.00 ft or 10.973 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

36.0	286	80.0	6,370
40.0	504	90.0	9,160
50.0	1,300	100.0	12,500
60.0	2,490	120.0	20,900
70.0	4,150		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
AM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1780	---	---	---	---	---	16700	12300	9600	3380	---
2	---	---	4440	---	---	---	---	15700	12300	9570	3130	---
3	---	---	---	---	---	12000	14800	15500	12300	9530	---	---
4	3760	---	---	---	---	---	---	15000	12200	9440	---	---
5	---	---	---	---	---	---	---	14700	12200	9350	2400	---
6	---	---	---	---	---	---	15300	14400	12300	9260	---	---
7	---	---	---	---	---	---	15400	14200	12200	9120	1920	---
8	---	1940	---	---	---	---	15600	14000	12200	8990	---	301
9	3180	---	4590	---	---	---	---	13800	12100	8850	1540	---
10	---	2110	---	---	---	12600	---	13700	11900	8720	---	---
11	---	---	---	---	---	---	16100	13500	11800	8480	1240	---
12	---	2240	---	---	---	---	---	13300	11700	8240	---	---
13	---	---	---	7600	---	---	16400	13200	11600	8010	1070	---
14	2540	---	---	---	---	12900	---	13000	11500	7780	---	---
15	2230	---	5550	---	---	---	---	12600	11300	7560	865	---
16	2060	---	---	---	10800	---	16700	12600	11200	7320	---	---
17	1890	---	---	---	---	---	---	12500	11100	7060	727	---
18	1840	---	---	---	---	---	---	12200	11000	6810	---	---
19	---	---	---	---	---	---	---	12200	10900	6540	615	---
20	1610	---	---	---	---	13400	---	12100	10800	6260	---	529
21	---	---	---	---	---	---	---	12100	10600	5880	518	---
22	---	---	---	---	---	---	17200	12100	10500	5560	---	---
23	1760	---	---	---	---	---	---	12100	10300	5250	347	607
24	---	---	---	---	---	---	---	12000	10200	4950	---	---
25	---	---	---	---	---	---	---	12100	10100	4830	325	---
26	1660	3860	---	---	---	---	---	12200	10100	4710	---	---
27	1760	---	---	---	---	14200	---	12300	10000	4440	286	607
28	---	---	---	---	11600	---	---	12400	9910	4180	---	---
29	1860	---	6670	---	---	---	---	12300	9770	3930	301	---
30	---	4180	---	---	---	---	16800	12300	9640	3650	---	621
31	1800	---	6830	9450	---	14400	---	12300	---	3370	301	---
MAX	---	---	---	---	---	---	---	16700	12300	9600	---	---
MIN	---	---	---	---	---	---	---	12000	9640	3370	---	---
(†)	---	70.18	81.20	90.95	---	105.22	---	99.49	91.55	65.69	36.30	---
(‡)	-1920	+2380	+2650	+2620	+2350	+2600	+2400	-4500	-2660	-6270	-3070	+320

CAL YR 1976............. ‡ -7080
WTR YR 1977............. ‡ -3100

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

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13148500 LITTLE WOOD RIVER NEAR CAREY, ID

LOCATION.--Lat 43°23'20", long 114°00'00", in E½ sec.30, T.1 N., R.21 E., Blaine County, Hydrologic Unit 17040221, on right bank 0.3 mi (0.5 km) upstream from West Canal, 1.3 mi (2.1 km) upstream from East Canal, 2 mi (3.2 km) downstream from Little Fish Creek, 3 mi (4.8 km) downstream from Little Wood Reservoir, 6 mi (9.7 km) northwest of Carey, and at mile 68.0 (109.4 km).

DRAINAGE AREA.--312 mi² (808 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1904 to May 1905 (gage heights and discharge measurements only), September 1926 to November 1942, April 1943 to current year. Monthly discharge only for some periods, published in WSP 1317. Records for February 1920 to September 1926 at site 6 mi (9.7 km) upstream not equivalent owing to diversion and inflow.

GAGE.--Water-stage recorder. Datum of gage is 4,990.59 ft (1,521 m) above mean sea level, unadjusted (levels by Bureau of Reclamation). Apr. 28, 1904, to May 31, 1905, nonrecording gage, Sept. 20, 1926, to Apr. 22, 1938, water-stage recorder, and Apr. 23 to Aug. 17, 1938, nonrecording gage, all at datum 0.74 ft (0.23 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Little Wood Reservoir 3 mi (4.8 km) upstream (see sta 13148200) and other upstream storage in Campbell, Cameron, and Howard Reservoirs on South Fork Muldoon and Little Fish Creeks (combined capacity, 690 acre-ft or 0.85 hm³). Diversions above station for irrigation of about 1,500 acres or 610 hm² (1966 determination).

AVERAGE DISCHARGE.--50 years (1927-42, 1944-77), 149 ft³/s (4.22 m³/s), 108,000 acre-ft/yr (133 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,000 ft³/s or 170 m³/s (due to failure of reservoirs on Little Fish Creek) Apr. 20, 1938 (gage height, 12.81 ft or 3.904 m, present datum, from floodmark), from rating curve extended above 1,800 ft³/s (51.0 m³/s); minimum, 1 ft³/s (28 dm³/s) Jan. 26, 1945, Jan. 20, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 270 ft³/s (7.65 m³/s) June 10 (gage height, 3.76 ft or 1.146 m); minimum, 1.7 ft³/s (0.048 m³/s) Nov. 17 (gage height, 1.43 ft or 0.436 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27-29)

1.4	1.4	2.2	28
1.5	2.5	2.5	57
1.6	4.2	3.0	125
1.7	6.5	3.5	220
1.9	12	4.0	340

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	70	2.0	1.9	2.4	3.3	4.4	203	128	78	129	25
2	69	50	2.0	1.9	2.4	3.4	4.4	209	133	68	130	24
3	69	50	2.0	1.8	2.5	3.4	4.4	220	156	79	153	24
4	69	50	2.0	1.8	2.5	3.4	4.4	211	184	99	162	24
5	69	50	2.0	1.8	2.5	3.5	4.5	193	190	98	159	24
6	101	50	2.0	1.8	2.6	3.5	4.5	181	209	98	155	24
7	144	48	2.0	1.8	2.6	3.5	4.5	172	236	125	144	24
8	143	15	2.0	1.8	2.6	3.6	4.5	157	250	126	132	24
9	140	25	2.0	1.8	2.7	3.6	4.7	141	258	125	124	24
10	140	35	2.0	1.8	2.7	3.6	4.6	119	267	136	113	23
11	139	22	2.0	1.8	2.7	3.7	4.5	111	256	142	101	20
12	137	16	1.9	1.8	2.8	3.7	4.4	111	242	141	86	12
13	154	3.6	1.9	1.8	2.8	3.7	4.4	117	241	140	79	11
14	173	2.4	1.9	1.8	2.8	3.8	4.4	160	228	140	70	11
15	170	2.1	1.9	1.8	2.9	3.8	4.3	160	213	139	67	11
16	167	2.0	1.9	1.9	2.9	3.8	4.3	162	194	161	61	12
17	163	3.9	1.9	1.9	2.9	3.9	4.4	162	186	164	60	12
18	160	6.1	1.9	1.9	3.0	3.9	4.2	152	176	176	59	12
19	138	3.1	1.9	2.0	3.0	3.9	4.2	102	167	181	57	12
20	57	2.4	1.9	2.0	3.0	4.0	4.2	81	147	188	55	12
21	49	2.2	1.9	2.0	3.1	4.0	4.2	69	147	187	54	12
22	10	2.2	1.9	2.1	3.1	4.0	4.2	82	146	192	53	9.9
23	38	2.1	1.9	2.1	3.1	4.1	4.3	83	146	197	52	9.8
24	26	2.0	1.9	2.1	3.2	4.1	13	84	133	183	54	9.8
25	64	2.1	1.9	2.2	3.2	4.1	60	76	114	165	53	9.6
26	69	2.1	1.9	2.2	3.2	4.2	90	66	97	154	48	9.5
27	82	2.0	1.9	2.2	3.3	4.2	125	66	97	151	25	9.6
28	58	2.0	1.9	2.3	3.3	4.2	144	90	102	147	25	9.6
29	69	2.0	1.9	2.3	---	4.3	155	106	115	140	25	9.9
30	79	2.0	1.9	2.3	---	4.3	185	105	109	134	25	9.9
31	72	---	1.9	2.4	---	4.3	---	104	---	133	25	---
TOTAL	3086	527.3	60.0	61.1	79.8	118.8	872.9	4055	5259	4387	2535	464.6
MEAN	99.5	17.6	1.94	1.97	2.85	3.83	29.1	131	175	142	81.8	15.5
MAX	173	70	2.0	2.4	3.3	4.3	185	220	267	197	162	25
MIN	10	2.0	1.9	1.8	2.4	3.3	4.2	66	97	68	25	9.5
AC-FT	6120	1050	119	121	158	236	1730	8040	10430	8700	5030	922

CAL YR 1976 TOTAL 48987.6 MEAN 134 MAX 665 MIN 1.9 AC-FT 97170
WTR YR 1977 TOTAL 21506.5 MEAN 58.9 MAX 267 MIN 1.8 AC-FT 42660

NOTE.--No gage-height record Nov. 30 to Apr. 7.

13148500 LITTLE WOOD RIVER NEAR CAREY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 20...	1730	56	262	8.1	14.5	9.0	--	120	4
NOV 30...	1130	1.9	374	--	-2.0	.5	0	--	--
JAN 13...	1320	1.8	371	--	-1.5	3.0	1	--	--
MAR 10...	1125	3.7	314	--	3.0	4.0	0	--	--
MAY 17...	1310	163	265	7.6	5.0	10.5	60	120	9
JUN 15...	0900	217	232	--	14.5	12.0	0	--	--
JUL 22...	1130	187	221	--	20.0	19.0	0	--	--
AUG 27...	1025	24	298	--	7.5	11.5	2	--	--
SEP 23...	1500	9.6	304	--	9.5	11.5	2	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 20...	34	8.3	4.6	8	.2	1.5	140	0	115
NOV 30...	--	--	--	--	--	--	--	--	--
JAN 13...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
MAY 17...	34	9.5	4.5	7	.2	1.2	140	0	110
JUN 15...	--	--	--	--	--	--	--	--	--
JUL 22...	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 20...	13	2.2	.2	13	147	.20	22.2	.33	.06
NOV 30...	--	--	--	--	--	--	--	--	--
JAN 13...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
MAY 17...	18	2.3	.1	10	149	.20	65.6	.03	.02
JUN 15...	--	--	--	--	--	--	--	--	--
JUL 22...	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--

13150430 SILVER CREEK AT SPORTSMAN ACCESS, NEAR PICABO, ID

LOCATION.--Lat 43°19'22", long 114°06'29", in SE¼NW¼ sec.20, T.1 S., R.20 E., Blaine County, Hydrologic Unit 17040221, on right bank at sportsman access road crossing to campground, 0.6 mi (1.0 km) downstream from State Highway 68 crossing, 2.3 mi (3.7 km) northwest of Picabo, and 4.3 mi (6.9 km) southeast of Gannett.

DRAINAGE AREA.--70 mi² (181 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,850 ft (1,478 m) above mean sea level.

REMARKS.--Records fair. No regulation. Several diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 502 ft³/s (14.2 m³/s) Apr. 6, 1976 (gage height, 8.35 ft or 2.545 m); minimum daily, 69 ft³/s (1.95 m³/s) June 30, July 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 291 ft³/s (8.24 m³/s) Oct. 20 (gage height, 7.83 ft or 2.387 m); minimum daily, 69 ft³/s (1.95 m³/s) June 30, July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	247	205	170	153	165	157	105	108	71	77	82
2	260	249	205	167	153	161	163	105	111	73	77	83
3	271	251	203	178	151	159	161	108	109	76	76	83
4	266	249	203	170	147	163	157	106	111	79	74	81
5	260	249	205	172	147	167	157	105	114	82	76	81
6	260	247	207	175	149	165	157	108	109	80	76	81
7	258	247	205	175	147	161	153	108	103	80	77	81
8	258	247	203	172	147	163	151	108	101	80	76	82
9	258	247	200	165	147	176	149	108	99	80	77	80
10	255	251	200	155	151	167	153	106	102	76	79	82
11	253	251	198	145	151	163	145	103	96	76	79	82
12	251	249	194	160	151	159	139	103	93	81	79	82
13	253	253	192	165	151	161	136	103	88	76	79	84
14	253	253	192	163	153	157	130	102	85	74	80	84
15	249	249	189	163	151	159	129	99	84	74	81	85
16	249	251	187	159	153	157	130	101	87	72	82	87
17	247	251	187	159	153	159	127	106	82	69	82	89
18	242	258	185	159	155	159	123	111	82	73	82	89
19	242	255	181	163	161	157	114	114	81	73	82	87
20	258	253	178	161	161	155	108	112	84	72	81	88
21	253	253	174	161	165	157	106	111	96	73	80	89
22	251	253	176	161	161	157	105	109	87	74	79	89
23	251	251	174	159	155	163	105	111	82	77	74	90
24	249	251	174	157	153	161	103	115	82	84	76	91
25	251	255	172	157	155	161	102	123	81	85	76	93
26	247	251	172	157	159	151	103	123	79	83	82	91
27	247	244	174	157	155	155	102	125	76	81	82	93
28	247	236	174	157	153	157	101	115	75	122	84	101
29	247	233	174	155	---	155	94	115	74	81	81	101
30	247	221	172	155	---	155	102	111	69	80	81	102
31	249	---	172	153	---	157	---	106	---	77	79	---
TOTAL	7837	7455	5827	5025	4288	4962	3862	3385	2730	2434	2446	2613
MEAN	253	249	188	162	153	160	129	109	91.0	78.5	78.9	87.1
MAX	271	258	207	178	165	176	163	125	114	122	84	102
MIN	242	221	172	145	147	151	94	99	69	69	74	80
AC-FT	15540	14790	11560	9970	8510	9840	7660	6710	5410	4830	4850	5180

CAL YR 1976 TOTAL 70724 MEAN 193 MAX 460 MIN 103 AC-FT 140300
WTR YR 1977 TOTAL 52864 MEAN 145 MAX 271 MIN 69 AC-FT 104900

13150430 SILVER CREEK AT SPORTSMAN ACCESS, NEAR PICABO, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
OCT								
21...	1525	255	404	--	17.5	12.0	210	9
NOV								
30...	1350	220	424	--	4.0	3.5	--	--
JAN								
13...	1500	165	406	--	3.5	2.5	--	--
MAR								
09...	1600	181	344	--	4.0	7.0	--	--
APR								
13...	1600	131	364	--	13.0	10.0	--	--
MAY								
17...	1040	105	424	8.2	4.5	10.0	200	17
JUN								
15...	1350	84	--	--	22.5	16.5	--	--
JUL								
24...	1230	84	375	--	15.0	20.0	--	--
AUG								
25...	1410	77	370	--	13.5	14.5	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT									
21...	61	13	4.8	5	.1	1.3	240	197	16
NOV									
30...	--	--	--	--	--	--	--	--	--
JAN									
13...	--	--	--	--	--	--	--	--	--
MAR									
09...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
MAY									
17...	56	14	5.2	5	.2	1.1	220	180	16
JUN									
15...	--	--	--	--	--	--	--	--	--
JUL									
24...	--	--	--	--	--	--	--	--	--
AUG									
25...	--	--	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT								
21...	2.0	.2	14	233	.32	160	.55	.00
NOV								
30...	--	--	--	--	--	--	--	--
JAN								
13...	--	--	--	--	--	--	--	--
MAR								
09...	--	--	--	--	--	--	--	--
APR								
13...	--	--	--	--	--	--	--	--
MAY								
17...	2.0	.3	13	218	.30	61.8	.36	.02
JUN								
15...	--	--	--	--	--	--	--	--
JUL								
24...	--	--	--	--	--	--	--	--
AUG								
25...	--	--	--	--	--	--	--	--

13152500 BIG WOOD RIVER NEAR GOODING, ID

LOCATION.--Lat 42°53'12", long 114°48'08", in NE¼NE¼SW¼ sec.21, T.6 S., R.14 E., Gooding County, Hydrologic Unit 17040219, on right bank at Hudson Ranch, 3.1 mi (5.0 km) downstream from bridge on Bliss-Gooding highway, 4.2 mi (6.8 km) downstream from Little Wood River, 5.5 mi (8.8 km) upstream from diversion dam for King Hill project, 6 mi (9.7 km) southwest of Gooding, and at mile 7.2 (11.6 km).

DRAINAGE AREA.--2,990 mi² (7,740 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1916 to current year (fragmentary October 1923 to September 1926; no winter records for water years 1923, 1936-37, 1942; irrigation seasons only for water years 1927-35). October 1950 to September 1959, published as Malad River near Gooding.

REVISED RECORDS.--WSP 1347: 1934.

GAGE.--Water-stage recorder. Altitude of gage is 3,345 ft or 1,020 m (from topographic map). Prior to Apr. 13, 1921, nonrecording gage at present site and datum.

REMARKS.--Records good except those for December to March and September, which are fair. Flow regulated by Magic Reservoir (see sta 13142000) and by several smaller reservoirs on tributaries and affected by deliveries from canals diverting from Snake River at Milner. Diversions above station for irrigation of about 144,000 acres (58,300 hm²) of which about 4,000 acres (1,620 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--45 years (1917-22, 1938-41, 1943-77), 273 ft³/s (7.73 m³/s), 197,800 acre-ft/yr (244 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,860 ft³/s (251 m³/s) Dec. 22, 1964 (gage height, 12.15 ft or 3.703 m), from floodmarks; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 742 ft³/s (21.0 m³/s) Oct. 6 (gage height, 4.87 ft or 1.484 m); minimum, no flow Sept. 7, 8, 11, 12.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 13 to Mar. 9, Aug. 20 to Sept. 30; stage-discharge relation affected by ice Nov. 26 to Dec. 3, Dec. 5-31, Jan. 1-18, Jan. 25 to Feb. 16)

0.3	0	1.5	44
.4	.3	2.0	96
.5	1.5	3.0	256
.6	2.9	4.0	486
1.2	23	5.0	785

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	515	81	191	112	86	118	328	42	12	121	26	36
2	528	84	146	101	105	104	322	49	11	95	38	31
3	568	96	139	105	112	109	350	55	5.7	62	37	9.2
4	596	119	141	105	109	108	390	141	8.2	62	28	3.4
5	614	118	133	102	106	118	369	150	27	77	25	.78
6	719	89	115	86	110	102	542	172	11	73	26	.09
7	710	83	130	53	111	109	367	165	17	182	20	.00
8	686	72	130	53	109	104	161	131	36	150	32	.00
9	664	126	122	54	109	100	84	117	18	127	30	.01
10	646	128	127	51	109	71	68	70	36	82	20	.01
11	696	101	136	53	112	27	119	59	65	59	15	.00
12	617	121	148	56	115	42	115	48	15	32	14	.00
13	328	145	125	50	118	148	104	34	30	26	12	.01
14	212	153	88	51	122	90	121	20	75	17	10	1.3
15	167	170	94	60	118	47	220	12	90	19	8.8	1.1
16	104	227	130	55	116	35	288	13	90	17	6.4	4.1
17	89	357	136	100	129	32	220	51	85	16	17	2.1
18	95	351	125	125	144	67	18	103	64	15	18	.90
19	109	278	115	120	151	165	8.2	99	58	13	17	.66
20	117	256	112	122	141	444	14	78	74	11	19	3.1
21	63	254	119	120	142	614	83	54	59	11	14	48
22	55	252	114	132	147	591	145	45	35	5.4	15	17
23	61	248	105	112	144	515	104	45	22	7.2	16	15
24	79	252	115	111	134	504	57	56	41	10	19	31
25	86	248	122	114	133	442	44	64	49	22	24	133
26	105	240	112	115	128	425	28	48	26	35	60	153
27	118	185	122	110	119	346	20	28	14	28	63	75
28	124	136	170	105	128	383	16	24	47	26	56	2.3
29	117	143	142	116	---	366	66	18	93	28	50	2.5
30	121	141	111	106	---	376	51	17	74	19	37	1.5
31	55	---	106	100	---	344	---	15	---	22	13	---
TOTAL	9858	5302	3921	2905	3412	7068	4832.2	2023	1287.9	1471.6	786.2	572.06
MEAN	318	177	126	93.7	122	228	161	65.3	42.9	47.5	25.4	19.1
MAX	719	357	191	132	151	614	542	172	93	182	63	153
MIN	55	72	88	50	86	27	8.2	12	5.7	5.4	6.4	.00
AC-FT	19560	10520	7780	5760	6770	14020	9580	4010	2550	2920	1560	1130

CAL YR 1976 TOTAL 126141.00 MEAN 345 MAX 2630 MIN 35 AC-FT 250200
WTR YR 1977 TOTAL 43440.96 MEAN 119 MAX 719 MIN .00 AC-FT 86170

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13152500 BIG WOOD RIVER NEAR GOODING, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
22...	1140	54	432	8.7	11.0	7.0	--	160	70
DEC									
02...	1605	159	503	--	5.0	1.0	0	--	--
MAR									
08...	1045	105	364	--	11.0	6.0	0	--	--
APR									
15...	1520	200	460	--	10.5	18.0	0	--	--
MAY									
16...	1000	12	436	7.7	13.0	13.0	3	140	22
JUN									
13...	1015	17	416	--	24.0	20.5	2	--	--
JUL									
25...	1000	17	425	--	20.0	22.0	0	--	--
AUG									
28...	1545	50	416	--	22.0	20.0	3	--	--
SEP									
28...	1630	2.0	395	--	17.0	22.0	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT									
22...	43	13	19	20	.7	3.8	100	5	90
DEC									
02...	--	--	--	--	--	--	--	--	--
MAR									
08...	--	--	--	--	--	--	--	--	--
APR									
15...	--	--	--	--	--	--	--	--	--
MAY									
16...	43	17	24	22	.8	5.1	190	0	160
JUN									
13...	--	--	--	--	--	--	--	--	--
JUL									
25...	--	--	--	--	--	--	--	--	--
AUG									
28...	--	--	--	--	--	--	--	--	--
SEP									
28...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT									
22...	17	7.9	.3	11	169	.23	24.7	.01	.07
DEC									
02...	--	--	--	--	--	--	--	--	--
MAR									
08...	--	--	--	--	--	--	--	--	--
APR									
15...	--	--	--	--	--	--	--	--	--
MAY									
16...	43	23	.9	4.8	255	.35	8.88	.02	.09
JUN									
13...	--	--	--	--	--	--	--	--	--
JUL									
25...	--	--	--	--	--	--	--	--	--
AUG									
28...	--	--	--	--	--	--	--	--	--
SEP									
28...	--	--	--	--	--	--	--	--	--

13153000 KING HILL CANAL NEAR HAGERMAN, ID

LOCATION.--Lat 42°52'05", long 114°54'40", in SE¼SE¼ sec.28, T.6 S., R.13 E., Twin Falls County, Hydrologic Unit 17040212, on left bank 600 ft (183 m) below outlet of inverted siphon crossing Snake River, 0.8 mi (1.3 km) west of highway bridge over Big Wood River, and 3.6 mi (5.8 km) north of Hagerman.

PERIOD OF RECORD.--March 1930 to current year (irrigation seasons only 1930-37, 1940-46).

REVISED RECORDS.--WSP 723: 1930.

GAGE.--Water-stage recorder. Altitude of gage is 2,850 ft or 869 m (from topographic map). Prior to June 1, 1949, nonrecording gages at several sites within 0.6 mi (1.0 km) of present site at various datums. June 1, 1949, to May 22, 1951, nonrecording gage at present site and datum. May 23, 1951, to Sept. 30, 1961, water-stage recorder 0.5 mi (0.8 km) upstream at different datum. Oct. 1, 1961, to Mar. 24, 1971, water-stage recorder 125 ft (38 m) downstream at different datum.

REMARKS.--Records good. This canal, which is operated by King Hill Irrigation District to provide water for irrigation of about 10,000 acres (4,050 hm^2), diverts from Idaho Power Co.'s canal, which diverts from Big Wood River (Malad Springs water).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 376 ft^3/s (10.6 m^3/s) June 14, 1973; no flow or minor leakage at headgate during nonirrigation seasons and other periods when gates are closed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	.00	.00	.00	.00	.00	194	293	319	300	338	279
2	284	.00	.00	.00	.00	.00	197	292	319	300	335	279
3	288	.00	.00	.00	.00	.00	194	292	316	297	333	280
4	287	.00	.00	.00	.00	.00	251	295	314	300	328	275
5	286	.00	.00	.00	.00	.00	278	293	314	299	327	277
6	287	.00	.00	.00	.00	.00	277	293	313	308	324	276
7	287	.00	.00	.00	.00	.00	277	293	312	318	323	277
8	286	.00	.00	.00	.00	.00	275	295	312	319	321	280
9	287	.00	.00	.00	.00	.00	275	295	310	321	320	278
10	119	.00	.00	.00	.00	.00	274	295	310	322	320	278
11	.00	.00	.00	.00	.00	.00	275	296	309	323	319	278
12	.00	.00	.00	.00	.00	.00	271	296	309	323	317	278
13	.00	.00	.00	.00	.00	.00	273	297	308	326	318	276
14	.00	.00	.00	.00	.00	.00	274	300	308	326	317	279
15	.00	.00	.00	.00	.00	.00	271	300	309	327	317	277
16	.00	.00	.00	.00	.00	.00	273	303	309	329	316	277
17	.00	.00	.00	.00	.00	.00	274	306	300	332	317	275
18	.00	.00	.00	.00	.00	.00	269	308	301	334	310	273
19	.00	.00	.00	.00	.00	.00	269	312	304	336	299	276
20	.00	.00	.00	.00	.00	.00	266	312	312	336	296	280
21	.00	.00	.00	.00	.00	41	265	310	314	340	295	279
22	.00	.00	.00	.00	.00	129	266	308	312	343	295	281
23	.00	.00	.00	.00	.00	195	265	308	305	345	294	283
24	.00	.00	.00	.00	.00	194	255	250	305	349	296	286
25	.00	.00	.00	.00	.00	195	283	159	304	349	295	287
26	.00	.00	.00	.00	.00	194	295	347	305	349	295	287
27	.00	.00	.00	.00	.00	196	292	344	308	347	295	286
28	.00	.00	.00	.00	.00	196	292	338	295	345	294	286
29	.00	.00	.00	.00	---	194	293	327	296	343	289	287
30	.00	.00	.00	.00	---	193	292	323	293	341	285	288
31	.00	---	.00	.00	---	193	---	321	---	340	281	---
TOTAL	2694.00	.00	.00	.00	.00	1920.00	8015	9301	9245	10167	9609	8398
MEAN	86.9	.000	.000	.000	.000	61.9	267	300	308	328	310	280
MAX	288	.00	.00	.00	.00	196	295	347	319	349	338	288
MIN	.00	.00	.00	.00	.00	.00	194	159	293	297	281	273
AC-FT	5340	.00	.00	.00	.00	3810	15900	18450	18340	20170	19060	16660

CAL YR 1976 TOTAL 56681.80 MEAN 155 MAX 358 MIN .00 AC-FT 112400
WTR YR 1977 TOTAL 59349.00 MEAN 163 MAX 349 MIN .00 AC-FT 117700

13154500 SNAKE RIVER AT KING HILL, ID

LOCATION.--Lat 43°00'08", long 115°12'06", in N¼NW¼SW¼ sec.7, T.5 S., R.11 E., Elmore County, Hydrologic Unit 17040212, on right bank 300 ft (90 m) east of railroad station at King Hill, 20 mi (32 km) downstream from Big Wood River, and at mile 546.6 (879.5 km).

DRAINAGE AREA.--35,800 mi^2 (92,700 km^2), approximately. Mean altitude, 6,040 ft (1,841 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1909 to current year.

REVISED RECORDS.--WSP 1317: 1935(M). WDR ID-76-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,492.3 ft (759.65 m) above mean sea level, by stadia levels. Nonrecording gage May 13, 1909, to Mar. 1, 1910, on left bank at present site at datum 2.20 ft (6.671 m) higher, Mar. 7 to Aug. 16, 1910, 0.8 mi (1.3 m) upstream at different datum, and Aug. 17, 1910, to Oct. 7, 1928, at present site and datum.

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir 168.4 mi (271.0 km) upstream (see sta 13076500). Diurnal fluctuation caused by hydroelectric plants upstream. At times, practically entire flow is diverted at Milner during irrigation seasons; only minor diversions below Milner; flow at King Hill is then derived largely from springs and seepage entering below Milner. Diversions above station for irrigation of about 2,450,000 acres (992,000 hm^2) of which about 675,000 acres (273,000 hm^2) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--68 years, 10,800 ft^3/s (306 m^3/s), 7,825,000 acre-ft/yr (9,648 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 47,200 ft^3/s (1,340 m^3/s) June 22, 1918 (gage height, 16.3 ft or 4.97 m), from rating curve extended above 30,000 ft^3/s (850 m^3/s); minimum observed, 1,250 ft^3/s (35.4 m^3/s) Jan. 10, 1950 (gage height, 1.75 ft or 533 m); minimum daily, 4,760 ft^3/s (135 m^3/s) June 7-9, Aug. 15, 16, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,400 ft^3/s (521 m^3/s) Dec. 3 (gage height, 9.61 ft or 2.929 m); minimum, 3,030 ft^3/s (85.8 m^3/s) Apr. 8 (gage height, 3.53 ft or 1.076 m); minimum daily, 6,270 ft^3/s (178 m^3/s) June 29.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

5.3	6,120	8.0	13,000
6.0	7,630	10.0	19,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10500	11700	15700	11500	11800	10300	8490	6320	6770	6290	6820	7260
2	10700	11100	16300	11500	11400	10700	9500	6420	6610	6520	6850	7090
3	11200	11400	17300	11900	11200	10500	7980	6470	6470	6410	6910	7160
4	11100	11500	16700	11100	11200	10500	10100	6560	6400	6570	6830	7200
5	11400	11500	16200	11500	11000	11300	7850	6710	6560	6550	6830	7160
6	12000	11500	15700	11600	11000	11000	8050	6940	6630	6660	6870	7170
7	12500	11500	15400	11500	10900	10500	7310	6980	6490	6600	7030	7220
8	12700	11900	15000	11100	10900	11300	6310	6990	6550	6780	6970	7260
9	12800	11100	15000	11000	10700	11100	6370	7140	6560	6550	7060	7080
10	12800	11400	13900	11400	10500	11000	6730	6860	6780	6580	6930	7100
11	12900	11400	13700	10800	11100	10600	6940	6920	6970	6520	6840	7120
12	14200	11500	13000	10800	11600	10400	6730	6900	7090	6480	6780	7130
13	13500	11700	12700	10300	10900	10800	6680	6840	7140	6400	6860	7090
14	13700	11900	12700	11100	10700	10900	6840	6670	7330	6360	6880	7140
15	13100	12000	12100	11400	10900	10300	6990	6750	7330	6430	6830	7110
16	12900	11800	11700	11000	10700	10300	7040	6660	7200	6350	6800	7180
17	12700	11800	12400	11300	10400	10500	6930	6720	7090	6430	6700	7310
18	11900	12200	11700	11500	10900	9050	6660	6990	6940	6490	6660	7270
19	11900	11700	11800	11500	9470	8180	6550	7050	6860	6330	6740	7360
20	12300	11900	11800	11400	9120	7940	6580	6990	6900	6450	6820	7350
21	11500	11900	11400	11400	9730	8540	6650	6860	6770	6430	6770	7470
22	11200	11800	11600	11400	9980	9540	6700	6800	6690	6460	6900	7560
23	10900	11600	11800	11600	9500	9720	6540	6980	6530	6570	6810	7600
24	11100	11900	11700	11600	8640	9370	6540	7250	6490	6620	6730	7630
25	11100	12400	11500	11700	8350	9170	6430	7500	6440	6880	6910	7750
26	11000	13300	11600	11700	9770	7620	6360	7180	6370	6950	7120	7790
27	11200	13500	11700	11800	10500	10100	6380	7230	6330	6810	7190	7890
28	11400	12800	11400	11800	10400	9050	6310	7130	6390	6830	7280	7600
29	11600	13800	11700	11800	---	9310	6320	7160	6270	6870	7290	7630
30	11500	14600	11500	11800	---	8190	6340	7130	6280	6730	7250	7640
31	11600	---	11600	11900	---	8980	---	6950	---	6800	7210	---
TOTAL	370900	360100	408300	353700	293260	306760	211200	214050	201230	203700	214470	220320
MEAN	11960	12000	13170	11410	10470	9895	7040	6905	6708	6571	6918	7344
MAX	14200	14600	17300	11900	11800	11300	10100	7500	7330	6950	7290	7890
MIN	10500	11100	11400	10300	8350	7620	6310	6320	6270	6290	6660	7080
AC-FT	735700	714300	809900	701600	581700	608500	418900	424600	399100	404000	425400	437000

CAL YR 1976 TOTAL 5352140 MEAN 14620 MAX 27700 MIN 6540 AC-FT 10620000
WTR YR 1977 TOTAL 3357990 MEAN 9200 MAX 17300 MIN 6270 AC-FT 6661000

13154500 SNAKE RIVER AT KING HILL, ID--Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1951 to current year.
WATER TEMPERATURES: March 1951 to current year.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 595 micromhos June 19, 1968; minimum daily, 296 micromhos May 15, 1974.
WATER TEMPERATURES: Maximum daily, 23°C Aug. 2, 1955; minimum daily, 3.0°C Dec. 11, 16, 1972.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 549 micromhos Oct. 23; minimum daily, 465 micromhos Apr. 11.
WATER TEMPERATURES: Maximum daily, 20.0°C several days during June, July, and August; minimum daily, 5.0°C Jan. 8, 9, 10, 11 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
18...	1215	11000	465	8.4	14.5	12.5	8	10.0	102	B13	33	200
NOV												
15...	1430	12200	477	8.4	8.5	10.0	4	10.6	103	29	54	200
DEC												
13...	1240	12600	438	8.3	3.5	6.5	5	11.4	102	20	B22	200
JAN												
11...	1300	11500	453	8.1	-5.5	6.0	10	10.3	90	64	39	200
FEB												
07...	1300	11000	457	8.3	13.5	8.5	3	11.5	105	88	39	200
MAR												
07...	1215	12600	*499	8.6	10.5	9.5	6	5.1	49	B15	53	200
APR												
11...	1200	6310	430	8.6	16.0	14.0	4	12.3	130	B11	67	180
MAY												
09...	1310	6960	487	8.6	29.0	16.0	3	12.6	139	B5	90	200
JUN												
06...	1215	6540	493	8.7	24.0	20.0	4	8.5	101	B9	77	190
JUL												
20...	1130	6290	449	8.3	30.0	19.5	2	10.9	128	B13	B705	190
AUG												
08...	1300	6590	485	8.5	29.0	19.0	3	12.5	146	B18	467	200
SEP												
06...	1230	7160	519	8.5	28.0	18.0	2	12.0	138	B5	115	190

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT												
18...	28	46	20	30	24	.9	4.7	*210	*0	172	49	25
NOV												
15...	28	48	19	29	24	.9	4.6	*210	*0	172	45	24
DEC												
13...	20	48	19	27	22	.8	4.3	*220	0	180	47	21
JAN												
11...	20	47	20	28	23	.9	4.4	*220	0	180	47	25
FEB												
07...	36	50	19	26	21	.8	4.5	200	0	164	48	26
MAR												
07...	28	49	18	27	23	.8	4.4	*210	*0	172	46	26
APR												
11...	2	42	19	27	24	.9	4.4	200	10	180	46	23
MAY												
09...	28	47	19	30	25	.9	4.5	180	12	170	49	23
JUN												
06...	0	44	20	30	25	.9	4.2	200	19	196	46	25
JUL												
20...	8	44	19	30	25	1.0	4.4	220	0	180	50	25
AUG												
08...	24	45	22	31	24	.9	4.5	190	12	176	51	24
SEP												
06...	30	45	20	32	26	1.0	4.6	190	2	160	51	26

* Not a field determination.
B Results based on count outside of ideal colony count range.

13154500 SNAKE RIVER AT KING HILL, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 18...	.6	26	305	305	.41	9060	1.2	1.1	2.3	10	.08	--
NOV 15...	.6	28	313	302	.43	10300	.74	.62	1.4	6.0	.07	--
DEC 13...	.6	26	304	301	.41	10300	.91	.42	1.3	5.9	.07	1.7
JAN 11...	.7	29	303	309	.41	9410	1.1	.43	1.5	6.8	.07	--
FEB 07...	.6	28	315	301	.43	9360	1.2	.17	1.4	6.1	.06	--
MAR 07...	.7	27	302	302	.41	10300	1.0	.24	1.2	5.5	.07	1.1
APR 11...	.6	30	292	301	.40	4980	.90	.61	1.5	6.7	.00	--
MAY 09...	.7	30	303	304	.41	5690	.82	.73	1.6	6.9	.07	--
JUN 06...	.6	29	293	316	.40	5170	.84	.31	1.2	5.1	.03	1.4
JUL 20...	.8	37	311	319	.42	5280	.88	.13	1.0	4.5	.04	--
AUG 08...	.7	34	315	318	.43	5600	1.1	.43	1.5	6.8	.06	--
SEP 06...	.6	35	316	310	.43	6110	1.4	.00	1.4	6.2	.05	.9

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS-PENDED COBALT (CO) (UG/L)
DEC 13...	2	0	2	<10	<9	1	0	0	0	<50	<50
MAR 07...	4	0	4	<10	<9	1	0	0	10	<50	<50
JUN 06...	3	--	3	<10	--	1	10	--	10	<50	--
SEP 06...	3	1	2	<10	<9	1	10	10	0	<50	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)
DEC 13...	0	<10	<8	2	250	40	<100	<96	4	20	10
MAR 07...	0	<10	<9	1	140	50	<100	<87	13	30	20
JUN 06...	0	<10	--	2	150	20	<100	--	5	10	--
SEP 06...	0	<10	<5	5	70	20	<100	<87	13	2[illegible]	20

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC 13...	10	.5	.5	.0	1	0	1	10	0	20
MAR 07...	10	.0	--	.0	1	0	1	10	10	0
JUN 06...	0	.1	--	.1	0	0	1	4	--	0
SEP 06...	0	.1	.1	.0	0	0	0	10	10	0

13154500 SNAKE RIVER AT KING HILL, ID--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
OCT									
18...	1215	11	327	96	99	100	--	--	--
NOV									
15...	1430	9	296	81	88	94	100	--	--
DEC									
13...	1240	7	238	67	70	75	89	91	100
JAN									
11...	1300	12	373	82	86	89	96	100	--
FEB									
07...	1300	10	297	81	95	98	100	--	--
MAR									
07...	1215	14	476	89	96	98	100	--	--
APR									
11...	1200	7	119	98	100	--	--	--	--
MAY									
09...	1310	11	207	96	100	--	--	--	--
JUN									
06...	1215	6	106	91	97	100	--	--	--
JUL									
20...	1130	8	136	--	--	--	--	--	--
AUG									
08...	1300	9	160	92	100	--	--	--	--
SEP									
06...	1230	6	116	90	100	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	501	509	498	508	499	511	493	486	498	500	512	524
2	504	511	497	507	496	506	495	479	504	499	516	525
3	501	505	497	509	498	502	486	484	492	499	516	523
4	503	506	489	512	494	497	489	484	502	497	515	524
5	504	505	491	514	498	491	481	487	496	497	517	521
6	505	509	497	512	495	498	490	486	493	499	518	522
7	508	505	492	511	497	492	468	491	494	504	518	526
8	504	504	490	511	496	497	479	492	492	502	514	523
9	503	505	498	511	492	495	481	496	490	501	518	520
10	509	507	500	512	543	492	470	493	494	500	518	520
11	498	504	502	514	493	492	465	495	494	499	520	518
12	502	505	503	513	496	497	471	492	496	497	517	523
13	510	506	507	512	494	492	475	489	494	497	516	519
14	502	507	500	516	494	489	475	492	499	497	517	522
15	496	508	503	513	495	493	475	489	495	499	517	516
16	499	508	525	507	496	497	484	502	517	502	511	518
17	502	506	527	509	497	494	480	498	525	497	514	518
18	501	508	526	510	498	496	480	498	522	495	511	523
19	497	508	527	510	495	495	488	502	519	500	510	523
20	493	505	524	501	493	496	482	501	524	499	506	524
21	498	507	528	499	495	495	487	501	524	498	510	528
22	499	506	532	505	495	500	484	499	523	496	508	533
23	549	506	530	501	499	498	488	504	526	495	511	529
24	501	507	533	501	501	508	490	501	522	499	507	527
25	496	510	533	503	494	494	487	499	520	496	509	528
26	497	511	530	503	512	498	489	505	518	504	514	531
27	505	505	530	503	508	492	484	500	523	503	510	527
28	501	506	532	505	511	494	485	501	519	504	510	527
29	499	503	530	503	---	492	482	504	520	503	520	529
30	505	505	533	499	---	494	475	502	515	505	521	527
31	503	---	534	499	---	495	---	507	---	504	520	---
MEAN	503	507	514	508	499	496	482	495	508	500	514	524

WTR YR 1977 MEAN 504 MAX 549 MIN 465

13154500 SNAKE RIVER AT KING HILL, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	12.0	6.5	7.0	6.5	9.0	10.0	16.5	16.0	18.5	18.5	17.0
2	15.0	12.0	6.0	7.0	6.5	8.5	10.5	16.0	16.5	18.0	19.0	16.5
3	14.5	12.0	6.5	6.5	7.0	8.0	11.5	15.5	17.0	17.5	19.5	17.0
4	14.0	12.0	6.0	6.0	7.5	8.5	11.5	15.0	17.5	18.5	20.0	17.5
5	13.5	12.0	6.0	6.0	7.5	9.5	12.0	14.0	19.0	18.5	20.0	18.0
6	14.0	12.5	6.5	6.0	8.0	9.5	12.5	13.5	19.0	18.5	19.5	17.5
7	14.0	13.0	7.0	6.5	8.0	9.5	13.0	14.0	20.0	19.0	18.5	18.0
8	14.5	12.0	6.5	5.0	8.0	10.0	14.0	13.5	19.5	18.5	18.0	17.5
9	15.0	12.5	7.0	5.0	8.0	9.5	14.0	14.5	18.5	19.0	18.0	17.5
10	14.0	12.0	6.5	5.0	8.5	9.5	14.0	14.5	18.5	19.0	18.5	18.0
11	14.0	12.0	7.0	5.0	9.0	9.0	14.0	14.0	18.5	18.5	19.0	17.5
12	14.5	11.5	7.0	5.0	9.5	9.5	14.5	15.0	19.0	18.5	19.5	17.0
13	14.5	11.0	6.5	6.0	9.0	9.0	15.0	15.0	18.5	18.5	20.0	17.5
14	14.0	10.0	7.0	6.5	9.5	---	14.0	15.5	18.5	19.0	20.0	16.5
15	14.0	9.5	6.5	7.0	9.5	9.0	14.5	15.5	19.0	19.0	19.5	17.5
16	14.0	10.0	7.0	7.5	9.5	9.5	14.0	15.0	18.5	---	19.0	16.5
17	13.5	11.0	7.5	8.0	9.5	9.5	14.5	13.5	18.0	20.0	19.5	17.0
18	13.0	10.0	7.0	8.0	10.0	9.0	13.0	13.5	18.5	19.5	19.5	16.0
19	12.0	11.0	7.0	8.0	10.5	9.0	12.5	13.0	19.5	20.0	19.5	16.0
20	12.0	10.5	7.0	8.0	10.5	9.0	13.5	14.5	19.0	20.0	19.5	15.5
21	11.0	10.0	6.5	7.5	10.5	9.5	13.5	15.0	18.0	20.0	19.5	15.0
22	11.5	10.5	7.0	7.5	10.0	9.5	14.5	15.5	19.0	20.0	19.5	14.5
23	12.0	10.0	7.0	7.0	9.5	10.0	15.0	15.5	19.5	20.0	19.0	14.5
24	12.0	10.0	6.5	7.0	9.5	11.0	16.0	15.0	20.0	19.5	18.5	14.0
25	12.0	10.0	7.0	7.0	9.0	11.0	15.5	15.5	20.0	20.0	18.0	15.0
26	11.5	9.0	7.0	7.5	9.5	11.5	15.0	15.5	20.0	19.0	17.5	14.5
27	11.0	8.0	8.0	7.0	9.5	10.5	15.5	15.0	19.5	19.0	17.0	15.5
28	11.0	6.5	7.5	7.5	9.0	10.0	16.0	15.0	20.0	20.0	17.5	16.0
29	12.0	7.0	8.0	7.0	---	9.0	16.5	14.5	19.0	19.0	17.0	15.5
30	12.0	---	7.5	6.5	---	9.0	16.5	15.0	18.5	20.0	17.5	15.0
31	12.0	---	7.0	6.0	---	9.0	---	15.0	---	18.5	17.0	---
MEAN	13.0	10.5	7.0	6.5	9.0	9.5	14.0	15.0	18.5	19.0	19.0	16.5

WTR YR 1977 MEAN 13.0 MAX 20.0 MIN 5.0

13154500 SNAKE RIVER AT KING HILL, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 18,76		NOV 15,76		DEC 13,76		JAN 11,77		FEB 7,77	
TIME	1215		1430		1240		1300		1300	
TOTAL CELLS/ML	7100		1400		1700		1900		860	
DIVERSITY: DIVISION	1.2		1.0		0.7		1.2		0.5	
.CLASS	1.2		1.0		0.7		1.3		0.5	
..ORDER	1.8		1.7		1.1		1.7		1.5	
...FAMILY	2.3		2.3		1.2		2.3		2.7	
....GENUS	2.8		3.0		1.4		2.8		2.9	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	*	0	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	*	0	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	120	2	13	1	56	3	*	0	--	-
....CHODATELLA	--	-	*	0	14	1	--	-	--	-
....DICTYOSPHAERIUM	--	-	*	0	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	27	3
....SELENASTRUM	--	-	*	0	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	54	6
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	740	10	*	0	*	0	--	-	--	-
....TETRASTRUM	--	-	*	0	--	-	29	1	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	120	2	13	1	42	2	58	3	7	1
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	3000*	41	470*	34	1400*	80	310*	16	350*	41
....MELOSIRA	120	2	180	13	--	-	43	2	7	1
....STEPHANODISCUS	740	10	59	4	14	1	29	1	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	*	0	--	-	*	0	--	-
....COCCONEIS	250	3	46	3	*	0	29	1	7	1
....RHOICOSPHENIA	--	-	20	1	*	0	--	-	7	1
...CYMBELLACEAE										
....AMPHORA	--	-	*	0	--	-	*	0	7	1
....CYMBELLA	120	2	20	1	*	0	14	1	14	2
...DIATOMACEAE										
....DIATOMA	--	-	*	0	*	0	22	1	20	2
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	26	2	28	2	58	3	14	2
....FRAGILARIA	--	-	26	2	*	0	79	4	150*	17
....SYNEDRA	120	2	20	1	56	3	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	120	2	20	1	*	0	72	4	34	4
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	--	-	7	1
....NAVICULA	120	2	110	8	42	2	120	6	110	13
...NITZSCHIACEAE										
....NITZSCHIA	250	3	13	1	14	1	43	2	27	3
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	13	1	*	0	--	-	14	2
....SURIRELLA	120	2	*	0	--	-	*	0	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...MALLOMONADACEAE										
....MALLOMONAS	--	-	--	-	--	-	*	0	--	-
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	940*	49	--	-
....OSCILLATORIA	1200*	17	290*	21	42	2	72	4	--	-

13154500 SNAKE RIVER AT KING HILL, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 18,76		NOV 15,76		DEC 13,76		JAN 11,77		FEB 7,77	
TIME	1215		1430		1240		1300		1300	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	14	1	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	*	0	*	0	--	-	--	-	--	-
....TRACHELOMONAS	--	-	*	0	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	--	-	--	-	7	1
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	14	1	--	-	--	-
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13154500 SNAKE RIVER AT KING HILL, ID--Continued

PHYTOPLAN..UN ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 9,77		JUN 6,77		JUL 20,77		AUG 8,77		SEP 6,77	
TIME	1310		1215		1130		1300		1230	
TOTAL CELLS/ML	7500		1600		9200		5500		5800	
DIVERSITY: DIVISION	0.2		1.5		1.7		1.4		1.2	
.CLASS	0.2		1.5		1.8		1.4		1.2	
..ORDER	0.5		2.0		2.1		1.7		1.7	
...FAMILY	0.6		2.6		2.4		1.8		2.2	
....GENUS	0.7		3.1		3.0		2.3		2.5	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	380	4	--	-	380	7
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	*	0	--	-	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	74	5	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	57	1	98	6	110	1	--	-	48	1
....CHODATELLA	--	-	--	-	110	1	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	46	1	95	2
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	66	4	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	560	10	--	-
....SCENEDESMUS	230	3	160	11	870	9	93	2	290	5
....TETRASTRUM	--	-	66	4	*	0	--	-	570	10
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	--	-	--	-	55	1	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	330	4	140	3	296	5
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	6700#	89	610#	39	2500#	27	2400#	44	3200#	55
....MELOSIRA	110	2	41	3	2100#	22	510	9	95	2
....STEPHANODISCUS	--	-	--	-	--	-	93	2	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	48	1
....RHOICOSPHENIA	--	-	25	2	55	1	--	-	95	2
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	93	2	--	-
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	33	2	110	1	46	1	95	2
...FRAGILARIACEAE										
....ASTERIONELLA	280	4	82	5	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	16	1	55	1	--	-	48	1
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	93	2	48	1
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	66	4	55	1	--	-	95	2
...NITZSCHIACEAE										
....NITZSCHIA	110	2	--	-	--	-	--	-	--	-
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...MALLOMONADACEAE										
....MALLOMONAS	--	-	--	-	--	-	--	-	--	-
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	220	2	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	160	11	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	1700#	19	--	-	--	-

13154500 SNAKE RIVER AT KING HILL, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	MAY 9,77 1310		JUN 6,77 1215		JUL 20,77 1130		AUG 8,77 1300		SEP 6,77 1230	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	160	2	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	8	1	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	--	-	--	-	--	-
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	430	7
...PERIDINIACEAE										
....PERIDINIUM	--	-	41	3	380	4	1400#	25	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM. MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
DEC								
13...	28	11.0	10.1	11.2	7.00	--	--	82.4
JUN								
06...	28	25.7	22.6	--	--	1.33	.182	2331

13161500 BRUNEAU RIVER AT ROWLAND, NV

LOCATION.--Lat 41°56'00", long 115°40'25", in NW¼SE¼ sec.29, T.47 N., R.56 E., Elko County, Hydrologic Unit 17050102, on left bank 2 mi (3 km) upstream from McDonald Creek and 0.5 mi (0.8 km) south of Rowland.

DRAINAGE AREA.--382 mi² (989 km²). Area at crest-stage site, 380 mi² (984 km²).

PERIOD OF RECORD.--June 1913 to September 1918, water years 1962-66 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft or 1,372 m (from topographic map). June 1913 to September 1918, nonrecording gage at different site and datum. October 1961 to September 1966, crest-stage gage at site 3 mi (5 km) upstream at different datum.

REMARKS.--Records good except those for winter months, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--16 years, 120 ft³/s (3.400 m³/s), 86,940 acre-ft/yr (107 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Feb. 11, 1962 (gage height, 13.0 ft or 3.96 m, site and datum then in use); minimum, 5 ft³/s (0.14 m³/s) Aug. 12, 13, 1918.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 8	2200	298	8.44	4.39	1.338	June 9	0200	230	7.08	4.18	1.274

Minimum discharge, 6.1 ft³/s (0.17 m³/s) Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	32	30	17	22	30	56	94	124	30	11	8.9
2	32	32	29	17	22	30	49	98	136	30	10	8.5
3	73	32	27	16	21	30	50	94	140	35	9.9	7.9
4	61	32	26	15	21	33	59	85	140	32	9.9	7.6
5	47	32	25	14	21	30	130	82	148	30	11	7.3
6	41	31	23	13	22	32	177	79	146	27	11	6.9
7	38	31	23	13	23	34	201	78	146	25	11	6.6
8	36	30	24	13	23	35	232	79	158	22	11	6.3
9	34	30	23	14	24	38	236	85	186	21	10	6.1
10	33	30	22	15	24	37	162	85	170	20	9.5	6.3
11	33	30	21	15	25	35	144	85	152	19	9.2	6.3
12	32	29	20	16	24	39	140	84	140	18	8.9	6.3
13	31	25	21	17	26	44	140	78	126	17	8.5	6.3
14	31	31	20	17	26	36	124	74	112	17	8.5	6.9
15	30	31	19	17	26	38	105	74	102	16	8.9	9.5
16	30	35	17	17	27	40	115	76	91	15	8.9	8.5
17	30	36	16	18	28	42	130	79	81	14	8.5	8.9
18	30	35	16	18	30	36	110	85	76	13	8.5	9.5
19	30	34	17	19	30	35	98	89	72	12	9.5	9.2
20	30	32	16	19	31	38	92	86	89	13	9.9	9.2
21	30	30	15	20	33	37	95	91	85	13	9.9	9.9
22	30	32	16	20	34	46	98	92	70	14	10	10
23	30	29	17	20	33	64	102	106	61	15	9.5	11
24	30	28	18	19	32	76	105	130	53	17	8.5	11
25	30	32	19	19	29	64	106	150	48	17	8.5	11
26	31	28	19	19	30	57	105	142	44	16	14	11
27	32	20	19	20	30	61	100	148	41	14	14	11
28	32	25	18	20	30	52	95	142	37	14	11	11
29	35	27	17	20	---	50	94	130	34	12	9.9	11
30	35	29	17	21	---	47	92	122	32	11	9.5	13
31	34	---	17	21	---	49	---	117	---	11	9.2	---
TOTAL	1075	910	627	539	747	1315	3542	3039	3040	580	307.6	262.9
MEAN	34.7	30.3	20.2	17.4	26.7	42.4	118	98.0	101	18.7	9.92	8.76
MAX	73	36	30	21	34	76	236	150	186	35	14	13
MIN	24	20	15	13	21	30	49	74	32	11	8.5	6.1
AC-FT	2130	1800	1240	1070	1480	2610	7030	6030	6030	1150	610	521

CAL YR 1976 TOTAL 38483.0 MEAN 105 MAX 560 MIN 13 AC-FT 76330
WTR YR 1977 TOTAL 15964.5 MEAN 43.8 MAX 236 MIN 6.1 AC-FT 31710

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID

LOCATION.--Lat 42°46'16", long 115°43'10", in NE¼NE¼SE¼ sec.34, T.7 S., R.6 E., Owyhee County, Hydrologic Unit 17050102, on right bank at Dunham Ranch, 1 mi (1.6 km) downstream from Hot Creek, 1.5 mi (2.4 km) south of Hot Spring, 9 mi (14.5 km) southeast of Bruneau, 16 mi (25.7 km) downstream from East Fork, and at mile 22.0 (35.4 km).

DRAINAGE AREA.--2,630 mi² (6,810 km²), approximately. Mean altitude, 5,600 ft (1,710 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1909 to March 1915, October 1943 to current year.

REVISED RECORDS.--WSP 1063: 1913. WSP 1517: 1910(M). WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,598.5 ft (792.02 m) above mean sea level. Prior to Mar. 12, 1910, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Mar. 12, 1910, to Mar. 15, 1915, nonrecording gage at present site and datum.

REMARKS.--Records excellent. Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 12,900 acres or 5,200 hm² (1966 determination).

AVERAGE DISCHARGE.--39 years (1909-14, 1943-77), 395 ft³/s (11.19 m³/s), 286,200 acre-ft/yr (353 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s (184 m³/s) Mar. 1, 1910 (gage height, 13.0 ft or 3.96 m, from floodmark, present site and datum), from rating curve extended above 1,200 ft³/s (34 m³/s); minimum daily, 25 ft³/s (0.71 m³/s) Dec. 18, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft³/s (37.9 m³/s) June 9 (gage height, 6.29 ft or 1.917 m); minimum daily discharge, 55 ft³/s (1.56 m³/s) Sept. 10, 11, 13, 14.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.1	45	4.5	419
3.4	95	5.0	640
3.7	163	6.0	1,170
4.0	244	6.2	1,290

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	132	89	81	84	135	148	460	569	209	80	71
2	132	130	99	83	93	120	148	451	734	201	78	69
3	139	128	105	99	102	115	153	419	840	206	76	67
4	224	128	116	112	104	106	143	384	824	218	74	66
5	227	128	125	101	90	109	143	355	850	207	72	62
6	202	128	121	87	84	120	188	337	922	185	70	61
7	181	128	112	81	96	130	404	322	952	173	70	59
8	170	128	114	81	104	135	542	308	951	161	70	58
9	163	125	128	79	105	137	655	302	1120	151	68	56
10	158	125	125	78	106	133	725	295	1280	143	66	55
11	153	125	105	78	113	123	551	292	1170	135	65	55
12	148	123	93	79	115	114	464	292	969	128	64	56
13	146	121	91	87	113	135	443	289	859	117	64	55
14	143	112	95	105	115	133	460	282	768	113	62	55
15	139	125	99	116	119	127	415	279	696	110	60	56
16	134	132	95	112	118	121	366	292	622	106	60	59
17	130	134	85	107	126	132	373	302	562	102	62	63
18	128	146	81	109	137	128	423	312	530	96	62	64
19	128	146	81	111	136	128	400	340	482	91	61	67
20	125	141	81	112	130	121	358	347	443	89	62	69
21	123	132	81	110	140	121	337	344	442	89	64	69
22	123	130	79	105	155	123	340	369	421	90	66	68
23	125	125	81	112	151	123	366	400	382	89	69	71
24	123	125	87	110	136	143	419	489	350	94	66	73
25	125	123	95	103	123	181	472	578	322	105	64	73
26	125	119	101	86	115	194	502	631	299	118	69	73
27	130	99	119	81	118	173	506	607	276	106	79	72
28	134	81	107	81	126	170	480	597	259	98	93	69
29	134	81	95	81	---	165	455	574	240	92	83	69
30	134	87	83	82	---	156	451	537	222	86	78	72
31	134	---	81	81	---	153	---	515	---	82	74	---
TOTAL	4514	3687	3049	2930	3254	4204	11840	12301	19356	3990	2151	1932
MEAN	146	123	98.4	94.5	116	136	395	397	645	129	69.4	64.4
MAX	227	146	128	116	155	194	725	631	1280	218	93	73
MIN	123	81	79	78	84	106	143	279	222	82	60	55
AC-FT	8950	7310	6050	5810	6450	8340	23480	24400	38390	7910	4270	3830

CAL YR 1976 TOTAL 146830 MEAN 401 MAX 2060 MIN 76 AC-FT 291200
WTR YR 1977 TOTAL 73208 MEAN 201 MAX 1280 MIN 55 AC-FT 145200

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 22...	1315	124	292	--	16.0	15.0	0	--	--	--
DEC 03...	1335	110	259	--	6.0	14.0	0	--	--	--
JAN 17...	0945	108	209	8.4	2.0	6.5	1	49	0	16
MAR 07...	1315	152	213	--	13.0	1.0	3	--	--	--
APR 17...	1105	344	146	--	11.0	14.0	2	--	--	--
MAY 11...	1135	306	146	--	18.0	14.0	--	--	--	--
JUN 09...	1130	968	80	--	20.0	16.0	--	--	--	--
JUL 19...	1530	89	173	--	27.0	25.0	0	--	--	--
AUG 29...	1030	84	430	--	17.0	21.0	0	--	--	--
SEP 29...	1210	68	236	--	11.5	21.5	13	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 22...	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--
JAN 17...	2.3	21	46	1.3	3.3	81	0	66	13	5.4
MAR 07...	--	--	--	--	--	--	--	--	--	--
APR 17...	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--
JUL 19...	--	--	--	--	--	--	--	--	--	--
AUG 29...	--	--	--	--	--	--	--	--	--	--
SEP 29...	--	--	--	--	--	--	--	--	--	--

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
OCT									
22...	--	--	--	--	--	--	--	--	--
DEC									
03...	--	--	--	--	--	--	--	--	--
JAN									
17...	2.2	35	139	.19	40.5	.29	.06	--	--
MAR									
07...	--	--	--	--	--	--	--	--	--
APR									
17...	--	--	--	--	--	--	--	--	--
MAY									
11...	--	--	--	--	--	--	--	--	--
JUN									
09...	--	--	--	--	--	--	--	222	580
JUL									
19...	--	--	--	--	--	--	--	--	--
AUG									
29...	--	--	--	--	--	--	--	--	--
SEP									
29...	--	--	--	--	--	--	--	--	--

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID
(Hydrologic bench-mark station)

LOCATION.--Lat 42°47'06", long 115°59'00", in NW¼SE¼ sec.28, T.7 S., R.4 E., Owyhee County, Hydrologic Unit 17050102, Bureau of Land Management lands, on left bank, 0.2 mi (0.3 km) upstream from confluence with Little Jacks Creek, 11.5 mi (18.5 km) southwest of Bruneau, and at mile 12.7 (20.4 km).

DRAINAGE AREA.--253 mi² (655 km²).

PERIOD OF RECORD.--December 1938 to October 1949, July 1965 to current year. Prior to October 1968, published as Wickahoney Creek near Bruneau.

REVISED RECORDS.--WRD Idaho 1967: Drainage area.

GAGE.--Water-stage recorder and a self-cleaning broad-crested concrete weir. Altitude of gage is 2,810 ft or 856 m (by barometer). December 1938 to October 1949 at site 145 ft (44.2 m) upstream at different datum.

REMARKS.--Records good. No diversion or regulation.

AVERAGE DISCHARGE.--22 years (1940-49, 1966-77), 3.41 ft³/s (96.57 dm³/s), 2,470 acre-ft/yr (3.05 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s (59.5 m³/s) Jan. 22, 1943 (gage height, 12.4 ft or 3.78 m, from high-water mark, site and datum then in use), on basis of slope-area measurement of peak flow; no flow for long periods each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.75 ft³/s (21.2 dm³/s) Oct. 28 (gage height, 1.94 ft or 0.59 m); no flow for many days.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.59	0.0	2.1	5.4	2.7	53
1.70	.10	2.2	9.0	3.0	110
1.8	.56	2.3	14	3.3	201
1.9	1.4	2.5	29	3.6	336
2.0	3.0				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.08	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.02	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	1.05	.23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.034	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.15	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	2.1	.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1976 TOTAL 2828.15 MEAN 7.73 MAX 316 MIN .00 AC-FT 5610
WTR YR 1977 TOTAL 1.28 MEAN .004 MAX .15 MIN .00 AC-FT 2.5

13172500 SNAKE RIVER NEAR MURPHY, ID

LOCATION.--Lat 43°17'31", long 116°25'12", in NW¼NE¼SE¼ sec.35, T.1 S., R.1 W., Ada County, Hydrologic Unit 17050103, on right bank 4.2 mi (6.8 km) downstream from Swan Falls powerplant, 7.5 mi (12.1 km) northeast of Murphy, and at mile 453.5 (729.7 km).

DRAINAGE AREA.--41,900 mi^2 (108,500 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to October 1912, August 1913 to current year.

REVISED RECORDS.--WSP 1737: 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 2,271.17 ft (692.253 m) above mean sea level. Prior to Sept. 7, 1914, nonrecording gage and Sept. 7, 1914, to Sept. 30, 1935, water-stage recorder at site 3.5 mi (5.6 km) upstream at datum 9.79 ft (2.984 m) higher.

REMARKS.-- Records good. Major regulation by American Falls Reservoir 260.5 mi (419.1 km) upstream (see sta 13076500). Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 2,590,000 acres (1,050,000 hm^2) of which about 701,000 acres (284,000 hm^2) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--64 years, 11,070 ft^3/s (313.5 m^3/s) 8,020,000 acre-ft/yr (9,890 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,300 ft^3/s (1,340 m^3/s) June 22, 1918 (gage height, 13.95 ft or 4.242 m, site and datum then in use); minimum recorded, 3,900 ft^3/s (110 m^3/s) July 9, 1949 (gage height, 2.53 ft or 0.771 m); minimum daily, 5,120 ft^3/s (145 m^3/s) June 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,200 ft^3/s (544 m^3/s) Dec. 4 (gage height, 7.55 ft or 2.301 m); minimum discharge, 5,040 ft^3/s (143 m^3/s) June 29, 30, July 2 (gage height, 2.70 ft or 0.823 m); minimum daily, 5,120 ft^3/s (145 m^3/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10300	12000	14600	11900	12300	10300	7780	6270	7110	5270	5710	6730
2	10800	12100	13900	12100	12400	10600	8140	6190	6840	5270	5920	6760
3	9750	13100	15800	12300	11700	10600	9240	6300	6160	5480	6000	6700
4	11300	12000	18400	11900	11800	11100	9000	6570	6050	5530	6050	6520
5	11300	11900	17200	12200	11700	11200	9350	6950	6050	6080	6080	6160
6	11800	12300	17300	11800	11200	11300	8460	7050	6220	6050	5970	5840
7	12500	11900	15900	11500	11400	11700	7240	6760	6350	5970	5870	6520
8	13500	11400	15700	11600	11300	10700	7590	7000	7670	5950	6030	6300
9	12500	12400	15700	11900	11300	11700	6380	7160	6240	5820	6190	6600
10	12300	12500	15700	11600	11200	11200	5920	7510	6650	5710	6300	6730
11	13300	12300	14200	11600	10900	11500	7380	6810	7480	5630	6240	6490
12	13200	11300	14300	11400	10900	11300	6410	7050	7510	5630	6270	6540
13	14700	11400	13700	11700	12000	10900	7270	7050	7590	5610	6110	6570
14	14700	11900	13000	11400	11100	10000	7110	6890	7590	5320	6050	6490
15	13300	12600	13600	11100	11800	11500	6380	6600	7540	5300	6030	6540
16	13400	12400	13300	11100	11300	11100	6620	6270	7430	5300	5950	6430
17	13000	12900	11600	11200	11100	10100	6840	6030	7270	5370	5920	6540
18	13100	12100	12700	11200	11300	9880	6870	6000	6760	5480	5740	6920
19	13200	12400	12400	11600	11300	9800	6700	6130	6680	5370	5790	7000
20	12400	12800	12300	12600	9770	8380	6320	6540	6380	5350	5740	6600
21	12000	12500	12800	11800	9510	7480	6570	7000	6130	5450	5690	7300
22	11600	12400	12100	11800	9720	8920	6620	6780	6190	5450	5660	7130
23	11400	12700	11600	11900	10100	10200	6600	6650	6160	5530	5790	7130
24	11600	13700	11600	11900	10200	10100	6540	6680	6030	5430	5950	7510
25	11400	12700	11700	12000	9930	9590	6870	7300	5950	5760	5820	7300
26	11400	11900	12700	12100	9640	9100	6650	8650	5740	6030	6760	7240
27	11400	13500	11900	12700	9910	8730	5950	7570	5500	6160	6780	7430
28	11400	15200	12000	12100	9910	8620	6080	7300	5270	6460	6760	7700
29	11600	14900	12700	12200	---	9990	6240	7110	5190	6080	6730	7620
30	12000	14700	12000	12300	---	9320	6270	7000	5120	5790	6700	7700
31	11800	---	11700	12200	---	9100	---	7130	---	5740	6730	---
TOTAL	377950	377900	424100	366700	306690	316010	211390	212300	194850	175370	189330	205040
MEAN	12190	12600	13680	11830	10950	10190	7046	6848	6495	5657	6107	6835
MAX	14700	15200	18400	12700	12400	11700	9350	8650	7670	6460	6780	7700
MIN	9750	11300	11600	11100	9510	7480	5920	6000	5120	5270	5660	5840
AC-FT	749700	749600	841200	727300	608300	626800	419300	421100	386500	347800	375500	406700

CAL YR 1976 TOTAL 5448290 MEAN 14890 MAX 29500 MIN 5420 AC-FT 10810000
WTR YR 1977 TOTAL 3357630 MEAN 9199 MAX 18400 MIN 5120 AC-FT 6660000

13172500 SNAKE RIVER NEAR MURPHY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 06...	1400	11300	584	8.5	21.0	18.5	0	190	26
NOV 17...	1410	12300	512	--	13.0	11.5	0	--	--
JAN 13...	1315	11900	493	--	4.5	3.5	--	--	--
FEB 21...	1720	9390	485	--	10.0	7.5	89	--	--
MAR 30...	1335	7650	467	--	11.5	9.5	3	--	--
MAY 04...	1150	5970	563	--	15.0	14.0	13	--	--
JUN 08...	1310	7140	465	--	25.5	24.0	1	--	--
JUL 28...	1355	6520	492	--	37.5	26.0	0	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 06...	42	20	32	27	1.0	4.6	200	0	164
NOV 17...	--	--	--	--	--	--	--	--	--
JAN 13...	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--
JUL 28...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 06...	49	29	.6	16	294	.40	8970	.62	.07
NOV 17...	--	--	--	--	--	--	--	--	--
JAN 13...	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--
JUL 28...	--	--	--	--	--	--	--	--	--

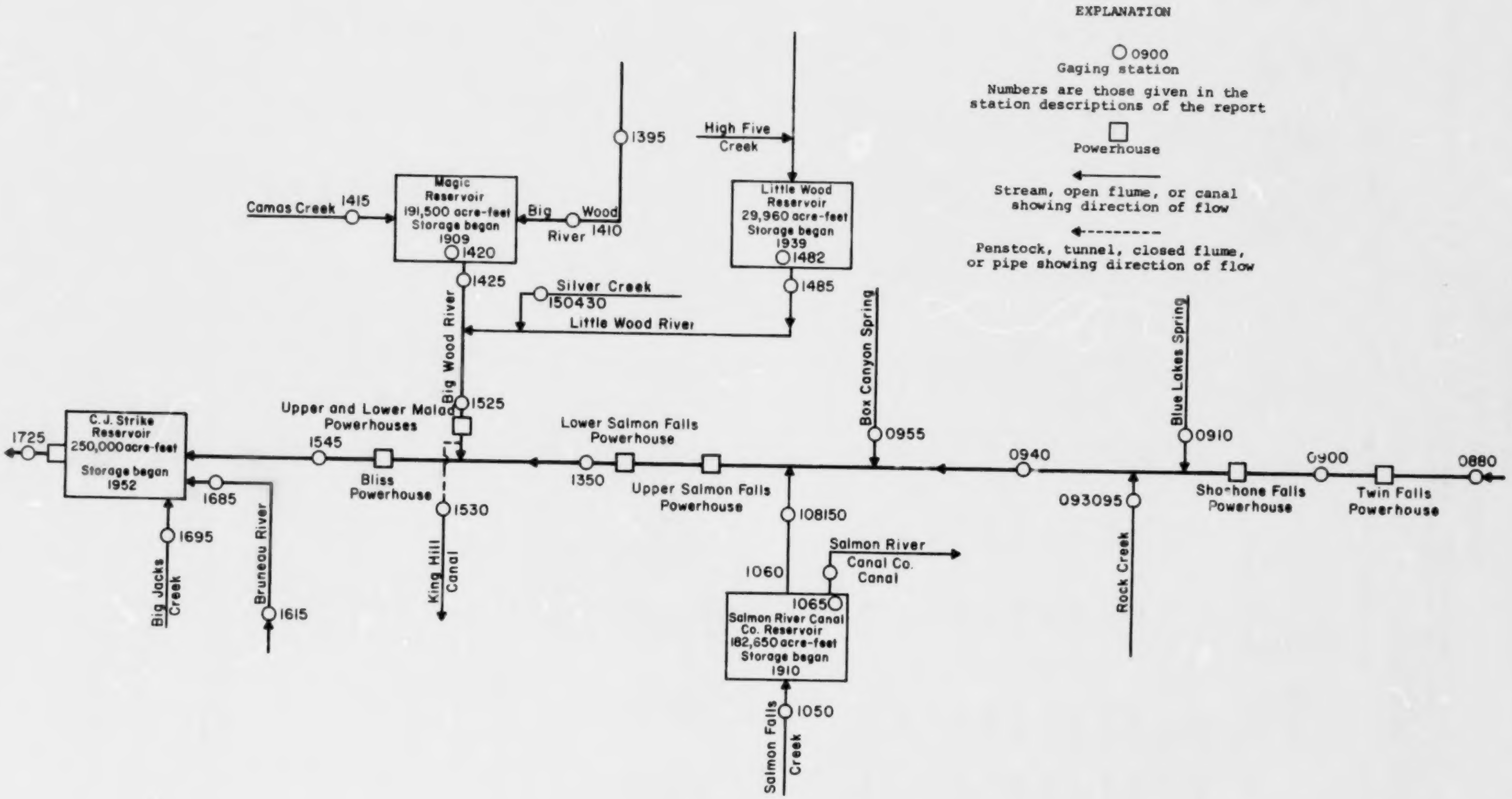
EXPLANATION
0900
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
1395
High Five Creek
Camas Creek 1415
Magic Reservoir 191,500 acre-feet Storage began 1909
1420
Big Wood River 1410
Little Wood Reservoir 29,960 acre-feet Storage began 1939
1482
1485
1425
Silver Creek
150430
Little Wood River
Big Wood River
1525
Box Canyon Spring
Blue Lakes Spring
0955
0910
Upper and Lower Malad Powerhouses
Lower Salmon Falls Powerhouse
1725
C.J. Strike Reservoir 250,000 acre-feet Storage began 1952
1545
Bliss Powerhouse
1350
Upper Salmon Falls Powerhouse
0940
Sho-hone Falls Powerhouse
0900
Twin Falls Powerhouse
0880
1685
1530
108150
093095
1695
Big Jacks Creek
Bruneau River
1615
King Hill Canal
1060
Salmon River Canal Co. Canal
1065
Salmon River Canal Co. Reservoir 182,650 acre-feet Storage began 1910
Rock Creek
1050
Salmon Falls Creek

FIGURE 16.--Gaging stations in Snake River basin between Milner and Murphy.

13172850 SNAKE RIVER AT MARSING, ID

LOCATION.--Lat 43°32'54", long 116°47'57", in NW¼SW¼SE¼ sec.34, T.3 N., R.4 W., Canyon-Owyhee County line, Hydrologic Unit 17050103, at State Highway 72 crossing at Marsing.
DRAINAGE AREA.--Not determined.
PERIOD OF RECORD.--Water years 1970-72, 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
12...	1030	9200	476	8.7	10.5	13.0	9	11.4	117	15	43	--
NOV												
18...	1330	12800	488	8.7	9.5	10.0	8	11.8	113	15	89	200
DEC												
17...	1030	11800	475	8.7	-9.0	2.0	25	12.4	97	10	20	--
JAN												
17...	1400	11600	491	8.6	7.0	2.5	9	13.5	108	--	84	--
FEB												
14...	1100	14000	465	8.5	11.0	4.0	4	12.2	106	2	82	200
MAR												
09...	1100	12800	451	8.8	8.5	7.5	4	11.8	107	9	35	--
APR												
12...	1300	6410	*494	8.9	19.0	12.5	6	12.8	130	14	84	--
MAY												
11...	1330	6680	449	8.9	15.0	16.0	4	11.7	124	44	89	160
JUN												
07...	1200	9360	464	8.6	31.5	23.0	5	11.0	137	--	34	--
JUL												
21...	1600	4570	421	8.9	35.0	25.5	10	12.8	167	19	8380	--
AUG												
09...	1700	5370	479	8.7	33.5	24.0	8	10.9	139	12	101	--
SEP												
09...	1100	5900	534	8.6	16.5	18.0	3	9.9	113	6	155	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT												
12...	--	--	--	--	--	--	--	170	24	179	--	--
NOV												
18...	0	47	20	32	25	1.0	4.7	220	12	200	48	25
DEC												
17...	--	--	--	--	--	--	--	220	12	200	--	--
JAN												
17...	--	--	--	--	--	--	--	190	14	179	--	--
FEB												
14...	16	50	19	29	23	.9	4.6	210	7	184	50	26
MAR												
09...	--	--	--	--	--	--	--	160	14	155	--	--
APR												
12...	--	--	--	--	--	--	--	180	19	179	--	--
MAY												
11...	15	35	18	--	--	--	4.8	130	24	147	53	23
JUN												
07...	--	--	--	--	--	--	--	160	19	163	--	--
JUL												
21...	--	--	--	--	--	--	--	160	24	171	--	--
AUG												
09...	--	--	--	--	--	--	--	170	19	171	75	28
SEP												
09...	--	--	--	--	--	--	--	170	19	171	--	--

* Not a field determination.
B Results based on count outside of ideal colony count range.

13172850 SNAKE RIVER AT MARSING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)
OCT												
12...	--	17	305	.41	7580	31	.75	.01	.94	.95	1.7	7.5
NOV												
18...	--	27	316	.43	10900	13	.54	.01	.35	.36	.90	4.0
DEC												
17...	--	22	267	.36	8510	42	.93	.00	.43	.43	1.4	6.0
JAN												
17...	--	28	314	.43	9830	2	.80	.00	.49	.49	1.3	5.7
FEB												
14...	--	27	314	.43	11900	6	1.0	.00	.02	.02	1.0	4.5
MAR												
09...	--	26	304	.41	10500	0	.91	.01	.84	.85	1.8	7.8
APR												
12...	--	24	297	.40	5140	11	.55	.04	.66	.70	1.3	5.5
MAY												
11...	.8	21	277	.38	5000	16	.30	.02	.64	.66	.96	4.3
JUN												
07...	--	19	280	.38	7080	5	.44	.11	.23	.34	.78	3.5
JUL												
21...	--	30	295	.40	3640	104	.23	.09	.71	.80	1.0	4.6
AUG												
09...	--	29	365	.50	5290	16	.45	.01	.39	.40	.85	3.8
SEP												
09...	--	29	322	.44	5130	13	.62	.01	.33	.34	.96	4.3

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT												
12...	.06	5	<10	0	10	490	<100	.0	1	30	6.3	2
NOV												
18...	.07	4	<10	0	<10	270	<100	.0	1	20	3.8	0
DEC												
17...	.02	2	<10	0	<10	150	<100	.0	1	10	6.7	0
JAN												
17...	.04	4	<10	0	<10	110	<100	.0	1	10	1.5	0
FEB												
14...	.06	3	<10	0	<10	230	<100	.0	1	0	1.9	0
MAR												
09...	.05	4	<10	0	<10	80	<100	.1	1	10	1.4	0
APR												
12...	.00	3	10	<10	10	310	<100	.0	1	10	3.0	0
MAY												
11...	.05	4	<10	0	<10	270	<100	.0	1	10	3.3	0
JUN												
07...	.02	4	<10	10	<10	850	<100	.1	0	20	1.8	0
JUL												
21...	.09	4	<10	5	10	1100	<100	.1	10	6	3.7	0
AUG												
09...	.05	6	<10	10	20	390	<100	.0	1	40	1.8	0
SEP												
09...	.05	3	<10	0	<10	120	<100	.1	1	10	1.8	0

13176000 OWYHEE RIVER ABOVE CHINA DIVERSION DAM, NEAR OWYHEE, NV

LOCATION.--Lat 41°55'20", long 116°04'10", in NW¼ sec.6, T.46 N., R.53 E., Elko County, Hydrologic Unit 17050104, on right bank 1,000 ft (305 m) downstream from Skull Creek, 1 mi (1.6 km) upstream from China diversion dam, and 2 mi (3.2 km) southeast of Owyhee, and at mile 262.0 (422 km).

DRAINAGE AREA.--458 mi² (1,186 km²).

PERIOD OF RECORD.--March 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,425 ft (1,654 m) above mean sea level, unadjusted. Prior to Oct. 1, 1939, at datum 1.48 ft (0.451 m) higher.

REMARKS.--Records good except those for winter months, which are poor. Numerous diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir.

AVERAGE DISCHARGE.--38 years, 145 ft³/s (4.106 m³/s), 105,100 acre-ft/yr (130 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,790 ft³/s (79.0 m³/s) about May 18, 1975 (gage height, 10.84 ft or 3.304 m), from inside high-water marks; minimum, 1.8 ft³/s (0.051 m³/s) Nov. 16, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 278 ft³/s (7.87 m³/s) Apr. 8 (gage height, 4.54 ft or 1.384 m); minimum daily, 12 ft³/s (0.34 m³/s) Jan. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	31	29	17	18	28	43	95	120	128	124	52
2	37	32	28	17	19	28	40	99	119	130	124	52
3	55	33	27	16	18	30	38	156	140	132	107	46
4	46	31	25	15	19	30	64	171	146	132	101	39
5	40	31	24	13	19	29	141	176	146	131	102	38
6	37	32	23	13	20	30	169	209	141	89	102	37
7	35	31	23	12	21	32	178	205	137	65	102	36
8	34	31	24	12	21	33	228	211	143	61	91	36
9	33	31	23	13	22	36	227	198	180	81	96	35
10	32	30	22	13	22	38	154	196	194	91	99	36
11	32	30	20	13	22	42	143	204	179	94	100	36
12	31	30	20	14	23	40	152	202	162	94	99	36
13	34	29	21	14	24	38	149	200	155	94	100	33
14	32	32	20	14	24	41	131	199	152	95	97	35
15	33	32	19	13	25	41	115	199	158	96	98	35
16	31	35	17	14	25	39	131	205	136	99	98	34
17	31	33	17	14	26	36	134	209	129	97	99	34
18	31	33	17	14	27	37	112	214	134	98	102	33
19	30	32	17	14	29	35	97	212	138	96	102	35
20	30	31	16	15	29	31	91	213	161	97	90	36
21	30	30	16	14	30	35	89	211	147	120	87	48
22	30	31	16	14	31	50	84	211	141	129	84	55
23	31	30	17	14	31	86	81	217	133	130	82	56
24	31	30	18	14	30	91	78	187	126	120	81	50
25	33	31	19	14	28	60	72	188	138	112	87	42
26	36	29	20	14	28	53	69	174	133	108	96	41
27	35	27	19	14	29	57	99	161	133	106	62	41
28	34	26	18	15	29	48	117	149	132	120	44	40
29	33	28	17	16	---	43	114	135	132	126	41	41
30	33	29	17	17	---	49	102	129	130	121	47	41
31	32	---	17	17	---	42	---	124	---	123	52	---
TOTAL	1049	921	626	443	689	1308	3440	5659	4315	3315	2796	1209
MEAN	33.8	30.7	20.2	14.3	24.6	42.2	115	183	144	107	90.2	40.3
MAX	55	35	29	17	31	91	228	217	194	132	124	56
MIN	27	26	16	12	18	28	38	95	119	61	41	33
AC-FT	2080	1830	1240	879	1370	2590	6820	11220	8560	6580	5550	2400

CAL YR 1976 TOTAL 63579 MEAN 174 MAX 892 MIN 16 AC-FT 126100
WTR YR 1977 TOTAL 25770 MEAN 70.6 MAX 228 MIN 12 AC-FT 51110

13177800 SOUTH FORK OWYHEE RIVER NEAR WHITEROCK, NV

LOCATION.--Lat 41°48'00", long 116°29'00", in NE¼ sec.16, T.45 N., R.49 E., Elko County, Hydrologic Unit 17050105, on left bank 500 ft (152 m) downstream from Rye Grass Creek, 1.8 mi (2.9 km) upstream from Chimney Creek, and 17 mi (27 km) northwest of Whiterock, and at mile 54.0 (87.0 km).

DRAINAGE AREA.--1,080 mi² (2,800 km²), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft or 1,490 m (from topographic map).

REMARKS.--Records poor. Many diversions for irrigation of hay meadows above station. Flow partly regulated by four small reservoirs (total capacity, about 16,100 acre-ft or 19.8 hm³).

AVERAGE DISCHARGE.--22 years, 163 ft³/s (4.616 m³/s), 118,100 acre-ft/yr (146 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,830 ft³/s (108 m³/s) June 5, 1963 (gage height, 7.55 ft or 2.301 m); no flow Oct. 1-12, 1955, part of Sept. 17, 28, 1960, Aug. 27, 31, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 168 ft³/s (4.76 m³/s) June 11 (gage height, 3.16 ft or 0.963 m), no peak above base of 600 ft³/s (17.0 m³/s); minimum daily, 5.2 ft³/s (0.147 m³/s) Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	52	43	25	37	62	57	15	22	13	24	8.5
2	37	52	41	26	36	62	50	13	20	12	23	8.5
3	61	55	39	24	35	63	48	12	20	12	24	6.2
4	64	64	37	22	36	66	62	12	14	12	26	6.7
5	60	39	36	21	38	63	86	12	10	12	26	6.2
6	56	38	34	20	42	62	92	12	8.5	12	26	5.7
7	52	39	34	20	44	62	90	10	8.5	11	27	5.7
8	50	39	35	20	47	62	110	9.5	12	13	26	5.2
9	48	39	34	24	48	64	90	12	21	15	24	5.7
10	47	39	32	26	49	69	86	12	31	13	29	6.4
11	46	39	30	27	50	73	71	9.5	121	12	31	6.2
12	45	39	29	28	50	70	73	10	121	12	26	5.7
13	48	41	31	28	52	67	69	10	89	12	19	5.4
14	47	46	29	28	53	71	58	11	51	21	17	7.0
15	47	47	27	27	54	73	52	12	63	36	15	8.0
16	46	50	26	28	58	70	55	12	38	38	15	7.7
17	45	47	25	29	59	65	60	13	36	39	16	9.0
18	45	47	25	31	62	66	60	15	62	34	12	9.0
19	44	46	24	31	63	62	45	19	96	31	10	9.5
20	43	45	23	30	64	57	40	21	72	20	12	9.5
21	43	44	23	30	66	62	31	22	64	16	12	10
22	44	46	24	31	69	80	27	23	59	19	12	12
23	45	46	25	31	69	90	24	27	43	18	10	13
24	47	44	27	29	66	92	22	29	29	16	9.5	21
25	48	43	28	28	61	82	20	36	21	18	6.4	15
26	51	41	29	29	62	68	19	50	19	21	6.4	14
27	56	39	28	30	62	69	17	74	20	18	6.2	15
28	52	40	27	31	62	55	17	77	16	18	8.0	14
29	55	41	26	33	---	50	18	48	16	19	9.0	16
30	55	42	25	35	---	50	19	36	14	21	10	17
31	55	---	25	37	---	54	---	23	---	26	9.0	---
TOTAL	1513	1329	921	859	1494	2061	1568	697.0	1217.0	592	526.5	288.8
MEAN	48.8	44.3	29.7	27.7	53.4	66.5	52.3	22.5	40.6	19.1	17.0	9.63
MAX	64	64	43	37	69	92	110	77	121	39	31	21
MIN	31	38	23	20	35	50	17	9.5	8.5	11	6.2	5.2
AC-FT	3000	2640	1830	1700	2960	4090	3110	1380	2410	1170	1040	573

CAL YR 1976 TOTAL 53108.0 MEAN 145 MAX 868 MIN 14 AC-FT 105300
WTR YR 1977 TOTAL 13066.3 MEAN 35.8 MAX 121 MIN 5.2 AC-FT 25920

13181000 OWYHEE RIVER NEAR ROME, OR

LOCATION.--Lat 42°52'02", long 117°38'52", in SE¼NE¼ sec.14, T.31 S., R.41 E., Malheur County, Hydrologic Unit 17050107, on right bank 0.5 mi (0.8 km) downstream from Jordan Creek, 2.6 mi (4.2 km) north of Rome, and at mile 122.4 (196.9 km).

DRAINAGE AREA.--About 8,000 mi² (20,700 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,344.20 ft (1,019.312 m) above mean sea level. Prior to Feb. 10, 1960, at datum 0.24 ft (0.073 m) lower.

REMARKS.--Water-discharge records good. Flow regulated by Antelope Reservoir, capacity, 70,000 acre-ft (86.3 hm³), increased in 1970, and Wild Horse Reservoir, capacity, 32,690 acre-ft (40.3 hm³), and numerous small reservoirs. Diversions above station for irrigation.

AVERAGE DISCHARGE.--28 years, 907 ft³/s (25.69 m³/s), 657,100 acre-ft/yr (810 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,500 ft³/s (949 m³/s) Dec. 24, 1964, gage height, 16.7 ft (5.09 m), from floodmark; minimum, 42 ft³/s (1.19 m³/s) Aug. 12, 1954, July 28, Aug. 5, 1961, July 31, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 675 ft³/s (19.1 m³/s) Apr. 6, gage height, 1.95 ft (0.594 m), no peak above base of 5,400 ft³/s (153 m³/s); minimum, 57 ft³/s (1.61 m³/s) July 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	213	185	171	190	199	237	127	304	118	98	95
2	180	209	190	187	190	203	227	130	276	120	92	99
3	177	209	195	206	170	203	237	118	248	113	92	99
4	183	206	200	160	160	213	244	118	223	107	106	99
5	187	209	190	150	155	213	419	130	206	112	96	97
6	187	209	175	120	155	193	491	135	187	109	105	83
7	199	209	175	105	155	190	515	153	171	103	106	84
8	213	216	175	105	160	187	540	162	153	96	116	81
9	216	209	175	105	170	209	555	165	144	94	119	75
10	203	206	175	115	180	234	515	159	156	91	110	75
11	206	206	175	130	190	241	491	180	502	87	109	78
12	196	199	175	150	206	237	491	213	478	80	123	79
13	193	196	175	170	209	237	415	196	419	77	123	80
14	187	190	175	185	213	220	397	174	419	70	124	78
15	187	190	175	190	206	216	370	190	415	82	125	81
16	193	206	175	190	196	234	347	220	365	74	132	79
17	190	220	175	190	203	234	325	213	308	67	123	81
18	187	213	190	190	206	223	304	216	269	75	119	85
19	183	209	195	190	216	227	269	213	255	84	116	87
20	180	209	200	190	240	230	258	209	241	120	111	92
21	180	220	150	190	251	234	262	206	248	123	111	95
22	180	213	159	190	251	220	237	209	296	120	107	97
23	180	209	177	190	251	216	209	227	285	109	103	100
24	180	203	180	190	244	280	193	244	268	102	86	111
25	183	199	168	190	244	276	183	255	262	89	84	113
26	199	199	180	180	220	276	171	248	239	86	90	109
27	199	190	180	175	216	312	144	255	214	92	107	107
28	199	185	187	170	203	304	141	284	185	111	116	108
29	203	180	177	160	---	276	133	308	163	94	115	118
30	209	180	180	160	---	237	130	304	132	91	111	135
31	213	---	165	170	---	251	---	312	---	95	102	---
TOTAL	5968	6111	5548	5164	5650	7225	9450	6273	8031	2991	3377	2800
MEAN	193	204	179	167	202	233	315	202	268	96.5	109	93.3
MAX	216	220	200	206	251	312	555	312	502	123	132	135
MIN	177	180	150	105	155	187	130	118	132	67	84	75
AC-FT	11840	12120	11000	10240	11210	14330	18740	12440	15930	5930	6700	5550

CAL YR 1976 TOTAL 360262 MEAN 984 MAX 9220 MIN 127 AC-FT 714600
WTR YR 1977 TOTAL 68588 MEAN 188 MAX 555 MIN 67 AC-FT 136000

13181000 OWYHEE RIVER NEAR ROME, OR

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1972 to June 1977 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C July 26-28, 1975; minimum, 0.0°C on several days in 1973, 1974, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 24.5°C June 6-9; minimum recorded, 0.5°C Feb. 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.5	7.0	6.5					---	---	4.0	4.0
2	15.5	14.0	8.0	7.0					---	---	4.5	4.0
3	14.0	12.0	8.0	7.0					---	---	5.0	4.5
4	14.0	12.0	8.0	7.0					---	---	5.0	4.5
5	14.0	12.0	8.0	6.5					---	---	5.5	4.5
6	13.5	11.5	8.0	7.0					---	---	5.5	5.0
7	13.5	11.0	8.0	7.0					---	---	5.5	5.5
8	13.0	10.5	7.0	6.5					0.5	0.5	6.5	5.0
9	13.0	11.0	6.5	6.0					1.0	0.5	6.5	6.0
10	13.5	11.5	6.0	6.0					1.0	1.0	6.5	5.5
11	13.0	11.5	6.0	5.5					1.5	1.0	6.0	5.5
12	12.0	10.5	6.0	5.5					1.5	1.5	6.5	6.0
13	11.5	10.0	5.5	4.5					1.5	1.5	6.5	6.0
14	11.0	10.0	4.5	4.5					3.0	1.5	6.5	6.0
15	11.0	9.5	4.5	4.5					3.5	3.0	6.5	6.0
16	10.5	9.0	6.0	4.5					4.0	3.5	7.0	6.5
17	10.0	9.0	6.0	5.5					4.5	4.0	7.0	6.5
18	9.5	8.0	6.0	5.5					4.5	4.5	7.0	6.5
19	8.0	6.5	6.0	5.5					4.5	4.0	6.5	6.5
20	8.5	6.5	5.5	5.5					4.0	4.0	8.5	6.5
21	8.5	7.0	5.5	5.0					4.0	4.0	8.5	8.0
22	8.5	7.0	5.0	5.0					4.0	4.0	9.0	8.0
23	8.5	7.0	5.0	4.5					4.0	4.0	9.0	8.5
24	8.5	7.0	4.5	4.5					4.0	3.5	9.0	8.0
25	7.0	7.0	4.5	4.5					3.5	3.5	9.0	8.0
26	8.5	7.0	4.5	4.5					3.5	3.5	9.0	8.0
27	8.5	7.0	4.5	---					4.5	3.5	9.0	6.0
28	8.0	6.5	---	---					4.5	4.0	6.0	6.0
29	7.0	6.5	---	---					---	---	6.0	6.0
30	8.0	6.5	---	---					---	---	6.0	6.0
31	8.0	7.0	---	---					---	---	6.0	6.0
MONTH	17.0	6.5	8.0	4.5					4.5	0.5	9.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	6.0	18.0	16.5	20.5	19.0						
2	6.5	6.0	17.0	16.0	20.5	18.5						
3	8.5	6.5	16.5	14.5	20.5	18.5						
4	10.0	8.0	14.5	13.5	22.0	20.0						
5	10.5	9.0	14.5	13.5	23.5	21.0						
6	11.0	10.0	14.0	13.0	24.5	22.0						
7	10.5	10.0	14.5	13.5	24.5	23.0						
8	10.5	10.0	14.5	13.5	24.5	23.0						
9	11.0	10.0	14.5	14.0	24.5	22.0						
10	11.0	10.0	14.5	13.5	22.0	20.5						
11	11.0	10.0	14.0	13.5	20.5	19.5						
12	11.0	10.0	15.0	14.0	20.5	19.5						
13	11.0	10.5	16.5	14.5	20.5	19.0						
14	10.5	10.0	16.5	15.5	19.5	18.5						
15	11.0	10.0	15.5	14.5	20.5	18.5						
16	10.5	10.0	14.5	14.0	21.0	19.0						
17	10.5	10.0	14.5	14.0	21.0	19.0						
18	11.0	10.0	15.5	14.5	21.0	19.0						
19	11.0	10.0	16.0	15.0	21.0	20.0						
20	11.0	10.0	17.0	15.5	20.5	20.0						
21	11.5	11.0	18.0	16.5	21.0	19.0						
22	12.0	11.0	18.5	17.0	---	---						
23	14.0	12.0	18.5	16.5	---	---						
24	15.0	13.5	16.5	16.0	---	---						
25	15.0	14.5	17.0	16.0	---	---						
26	15.0	13.5	17.0	16.0	---	---						
27	15.5	13.5	16.5	15.5	---	---						
28	16.0	14.0	18.0	15.5	---	---						
29	18.0	15.5	18.5	16.5	---	---						
30	18.0	16.0	19.0	17.0	---	---						
31	---	---	20.5	18.0	---	---						
MONTH	18.0	6.0	20.5	13.0	24.5	18.5						
YEAR	24.5	0.5										

13184500 MIDDLE FORK BOISE RIVER NEAR TWIN SPRINGS, ID

LOCATION.--Lat 43°42'49", long 115°37'50", in NW¼SE¼NW¼ sec.4, T.4 N., R.7 E., Boise County, Hydrologic Unit 17050111, Boise National Forest, on left bank 1,000 ft (300 m) upstream from confluence with North Fork Boise River, 1,000 ft (300 m) upstream from Troutdale guard station, and 4.5 mi (7.24 km) northeast of Twin Springs.

DRAINAGE AREA.--382 mi^2 (989 km^2).

PERIOD OF RECORD.--October 1946 to September 1950, October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,480.60 ft (1,060.887 m) above National Geodetic Vertical Datum of 1929 (NGVD).

REMARKS.--Records good except those for periods of ice effect or no gage-height record, which are fair. No regulation or diversion.

AVERAGE DISCHARGE.--5 years, 558 ft^3/s (15.80 m^3/s), 19.84 in/yr (504 mm/yr), 404,300 acre-ft/yr (499 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,370 ft^3/s (124 m^3/s) May 29, 1948 (gage height, 7.40 ft or 2.256 m); minimum, 65 ft^3/s (1.84 m^3/s) Feb. 6, 1949 (gage height, 1.12 ft or 0.341 m), result of snowslide upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 970 ft^3/s (27.5 m^3/s) June 8 (gage height, 3.90 ft or 1.189 m), no peak above base of 1,900 ft^3/s (53.8 m^3/s); minimum, 72 ft^3/s (2.04 m^3/s) Nov. 28 (gage height, 1.74 ft or 0.530 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 7-9, 11-19, 31, Feb. 1-2)

1.8	81	3.0	472
2.0	120	3.5	732
2.5	267	3.8	910

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	213	171	172	146	160	160	510	552	240	145	154
2	248	214	166	198	150	154	157	510	794	245	141	146
3	278	214	172	202	154	152	157	460	715	272	139	139
4	268	210	212	185	153	147	168	420	732	283	137	134
5	258	207	200	171	155	147	214	380	779	277	139	130
6	256	204	161	138	155	157	257	360	824	247	139	129
7	243	203	207	118	154	154	350	356	859	233	139	128
8	240	201	207	110	156	160	450	348	842	223	146	126
9	235	201	201	102	160	180	560	334	722	214	145	125
10	233	201	183	98	161	165	425	398	763	212	138	127
11	230	201	177	110	160	147	390	384	804	203	134	124
12	227	198	166	128	160	165	390	360	725	197	131	123
13	227	187	172	145	163	163	405	366	610	191	128	123
14	225	187	173	160	160	154	385	391	565	184	127	122
15	222	204	163	170	154	141	340	403	646	179	130	126
16	220	202	161	174	154	157	350	395	562	174	124	135
17	219	202	152	178	157	157	395	381	501	168	122	149
18	217	198	133	178	154	149	365	370	460	165	121	148
19	215	198	118	170	154	154	345	374	438	162	121	139
20	216	193	108	167	154	147	325	361	425	162	121	145
21	216	190	144	166	165	152	325	352	402	161	121	156
22	214	193	164	168	165	154	345	352	371	165	121	147
23	213	188	185	156	160	168	385	415	346	165	118	144
24	211	189	169	141	154	183	425	506	327	187	120	161
25	232	195	177	140	141	165	490	520	307	229	152	166
26	225	169	212	132	160	165	535	506	294	186	195	158
27	218	113	210	132	152	168	525	520	278	170	189	152
28	217	88	169	138	160	168	490	494	269	162	161	147
29	217	162	140	132	---	157	520	468	257	155	156	169
30	216	156	136	138	---	160	510	440	248	150	152	202
31	213	---	150	142	---	157	---	436	---	148	166	---
TOTAL	7120	5681	5259	4659	4371	4907	11138	12870	16417	6109	4318	4274
MEAN	230	189	170	150	156	158	371	415	547	197	139	142
MAX	278	214	212	202	165	183	560	520	859	283	195	202
MIN	211	88	108	98	141	141	157	334	248	148	118	122
CFSM	.60	.50	.45	.39	.41	.41	.97	1.09	1.43	.52	.36	.37
IN.	.69	.55	.51	.45	.43	.48	1.08	1.25	1.60	.59	.42	.42
AC-FT	14120	11270	10430	9240	8670	9730	22090	25530	32560	12120	8560	8480

WTR YR 1977 TOTAL 87123 MEAN 239 MAX 859 MIN 88 CFSM .63 IN 8.48 AC-FT 172800

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID

LOCATION.--Lat 43°39'33", long 115°43'34", in NW¼NE¼ sec.27, T.4 N., R.6 E., Boise County, Hydrologic Unit 17050112, Boise National Forest, on right bank 0.7 mi (1.1 km) upstream from Birch Creek, 1.8 mi (2.9 km) upstream from maximum flow line of Arrowrock Reservoir, 3.2 mi (5.1 km) downstream from Twin Springs, 13 mi (20.9 km) upstream from Arrowrock Dam, and at mile 88.5 (142.4 km).

DRAINAGE AREA.--830 mi² (2,150 km²), approximately. Mean altitude, 6,350 ft (1,935 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,255.70 ft or 992.337 m (U.S.C.& G.S., supplementary adjustment of 1961). March 1911 to Apr. 3, 1915, nonrecording gage, and Apr. 4, 1915, to Sept. 30, 1965, water-stage recorder at site 0.3 mi (0.5 km) downstream at datum 5.26 ft (1.603 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--66 years, 1,202 ft³/s (34.04 m³/s), 19.66 in/yr (499 mm/yr), 870,800 acre-ft/yr (1,074 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s (532 m³/s) Dec. 23, 1964 (gage height, 12.20 ft or 3.719 m, from floodmark, site and datum then in use); minimum, 105 ft³/s (2.97 m³/s) Nov. 28, 1976 (gage height, 2.64 ft or 0.805 m); minimum gage height, 1.48 ft (0.451 m) Dec. 6, 7, 1960 (site and datum then in use).

EXTEMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft³/s (42.2 m³/s) June 8 (gage height, 4.95 ft or 1.509 m), no peak above base of 3,700 ft³/s (105 m³/s); minimum, 105 ft³/s (2.97 m³/s) Nov. 28 (gage height, 2.64 ft or 0.805 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 3, Jan. 7-17, 31, Feb. 1, 2)

2.7	115	3.7	459
2.9	159	4.0	650
3.1	216	4.5	1,080
3.4	323	5.0	1,590

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	449	404	323	320	295	323	339	949	940	424	260	293
2	449	404	335	375	300	312	331	949	1250	434	253	271
3	481	404	339	400	308	304	335	869	1160	470	249	256
4	470	395	382	360	304	300	360	794	1160	504	242	249
5	454	395	378	331	304	296	459	722	1220	498	242	246
6	449	391	323	289	304	308	578	682	1290	439	246	239
7	444	386	360	250	300	319	690	682	1370	409	246	236
8	434	382	386	230	300	331	876	682	1350	395	260	232
9	429	382	377	215	300	364	1040	650	1170	377	260	229
10	429	382	343	205	304	343	818	770	1230	373	249	229
11	424	377	327	220	304	308	754	786	1400	364	242	229
12	419	368	315	250	304	327	762	722	1300	352	239	229
13	419	348	319	280	308	343	778	706	1080	339	232	226
14	414	327	323	310	308	315	730	730	1000	331	226	226
15	409	386	312	330	300	293	650	738	1080	323	232	226
16	409	395	312	335	300	312	682	730	976	315	229	236
17	404	386	300	340	304	331	754	714	878	304	219	263
18	404	377	281	339	304	312	706	690	802	296	216	281
19	400	377	256	327	304	319	658	698	778	293	219	256
20	400	364	229	315	304	300	636	674	778	293	219	260
21	400	352	267	312	323	312	628	643	730	293	216	278
22	400	368	315	315	327	319	650	636	666	300	216	278
23	400	348	360	300	312	356	730	730	614	300	216	267
24	395	339	356	285	312	373	818	922	572	319	216	289
25	429	368	360	278	289	348	913	967	540	395	263	335
26	429	331	382	274	304	348	1000	940	509	335	335	308
27	409	201	373	278	304	356	985	985	487	308	339	293
28	404	123	327	285	312	352	931	949	470	289	296	281
29	409	213	289	278	---	319	958	886	449	274	285	289
30	409	285	240	285	---	339	949	835	434	271	278	364
31	400	---	275	290	---	331	---	810	---	267	315	---
TOTAL	13074	10558	10064	9201	8542	10113	21500	24240	27683	10884	7755	7894
MEAN	422	352	325	297	305	326	717	782	923	351	250	263
MAX	481	404	386	400	327	373	1040	985	1400	504	339	364
MIN	395	123	229	205	289	293	331	636	434	267	216	226
CFSM	.51	.42	.39	.36	.37	.39	.86	.94	1.11	.42	.30	.32
IN.	.59	.47	.45	.41	.38	.45	.96	1.09	1.24	.49	.35	.35
AC-FT	25930	20940	19960	18250	16940	20060	42650	48080	54910	21590	15380	15660

CAL YR 1976 TOTAL 454669 MEAN 1242 MAX 6890 MIN 123 CFSM 1.50 IN 20.38 AC-FT 901800
WTR YR 1977 TOTAL 161508 MEAN 442 MAX 1400 MIN 123 CFSM .53 IN 7.24 AC-FT 320400

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1977.
INSTRUMENTATION.--Temperature recorder since June 9, 1977.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
OCT 07...	--	436	--	--	22.5	10.0	--	--
NOV 10...	1315	377	97	7.7	14.5	5.5	30	0
JAN 10...	1405	236	95	--	-3.0	.0	--	--
FEB 12...	1615	250	97	--	11.0	3.5	--	--
MAY 06...	1525	669	--	--	12.0	9.0	--	--
JUN 09...	1011	1130	51	--	23.0	15.0	--	--
JUL 22...	1307	305	90	--	34.5	22.0	--	--
SEP 02...	1455	254	91	8.1	--	14.5	34	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 07...	--	--	--	--	--	--	--	--	--
NOV 10...	11	.7	5.2	27	.4	.4	49	40	.4
JAN 10...	--	--	--	--	--	--	--	--	--
FEB 12...	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--
JUL 22...	--	--	--	--	--	--	--	--	--
SEP 02...	12	1.0	6.0	27	.4	.6	50	41	8.0

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 07...	--	--	--	--	--	--	--	--
NOV 10...	.6	.1	12	55	.07	56.0	.00	.01
JAN 10...	--	--	--	--	--	--	--	--
FEB 12...	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--
JUL 22...	--	--	--	--	--	--	--	--
SEP 02...	.6	.9	15	69	.09	47.3	.01	.00

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	20.0	17.5	23.5	17.5	17.5	12.5
2					---	---	21.0	17.5	23.5	19.0	18.5	13.0
3					---	---	19.0	16.5	25.0	20.5	19.5	14.5
4					---	---	18.0	15.0	23.0	19.5	20.0	15.0
5					---	---	20.0	14.0	22.0	18.0	20.5	15.5
6					---	---	19.0	15.5	22.5	18.0	21.0	16.5
7					---	---	20.5	14.0	21.5	19.0	21.0	16.5
8					---	---	22.0	16.0	22.5	18.0	19.5	16.0
9					15.5	14.0	21.0	17.5	23.0	18.0	18.0	13.5
10					14.0	12.5	21.0	16.0	23.0	17.5	18.0	13.0
11					15.5	12.0	21.5	15.5	23.5	18.0	18.5	14.0
12					17.0	12.5	23.0	17.0	24.0	18.5	18.5	14.0
13					16.0	14.0	22.5	16.0	23.5	18.5	18.0	13.5
14					17.5	14.0	22.5	16.5	22.0	19.0	16.5	13.5
15					18.0	13.5	23.5	17.0	23.5	18.0	18.5	15.0
16					18.5	14.0	24.0	16.5	24.0	18.0	17.0	13.5
17					18.0	14.0	24.0	19.0	22.5	18.5	16.5	12.5
18					18.0	14.5	24.0	19.0	24.5	20.5	15.5	11.5
19					19.5	15.0	24.5	19.5	24.5	19.5	14.5	13.0
20					17.5	14.5	24.0	19.0	24.0	19.5	13.5	12.5
21					19.0	14.0	23.5	20.0	23.0	20.0	13.0	10.5
22					20.5	15.5	25.0	16.5	23.0	19.0	13.0	9.5
23					22.0	17.0	25.5	20.0	22.5	17.5	11.0	8.5
24					22.0	17.0	24.0	20.5	20.5	17.5	12.5	10.5
25					23.0	17.5	22.0	17.5	17.5	16.0	13.0	10.0
26					22.5	18.0	24.5	19.0	17.5	15.0	14.0	10.5
27					22.0	18.0	24.5	19.0	16.0	13.0	14.0	10.5
28					22.0	16.5	24.0	18.5	16.0	13.0	14.5	11.5
29					22.0	17.5	23.5	19.0	19.0	14.5	14.5	12.0
30					21.5	16.0	22.5	17.5	18.5	15.5	11.5	10.0
31					---	---	23.0	17.5	16.0	13.0	---	---
MONTH					23.0	12.0	25.5	14.0	25.0	13.0	21.0	8.5
YEAR	25.5	8.5										

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID

LOCATION.--Lat 43°29'40", long 115°18'20", in lot 6, NE¼ sec.19, T.2 N., R.10 E., Elmore County, Hydrologic Unit 17050113, on right bank 2.5 mi (4.0 km) upstream from Deer Creek, 8 mi (12.9 km) southwest of Featherville, and at mile 59.0 (94.9 km).

DRAINAGE AREA.--635 mi^2 (1,645 km^2). Mean altitude, 6,840 ft (2,085 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft or 1,286 m (from topographic map of Bureau of Reclamation).

REMARKS.--Records good except those for periods of no gage-height record, which are fair. No regulation. Diversions above station for irrigation of about 450 acres or 180 hm^2 (1966 determination).

AVERAGE DISCHARGE.--32 years, 796 ft^3/s (22.54 m^3/s), 17.02 in/yr (432.3 mm/yr), 576,700 acre-ft/yr (711 hm^3).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,580 ft^3/s (215 m^3/s) May 24, 1956 (gage height, 8.62 ft or 2.63 m); minimum, 30 ft^3/s (0.85 m^3/s) Feb. 10, 1949 (gage height, 0.60 ft or 0.18 m, result of snowslide upstream).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 820 ft^3/s (23.2 m^3/s) June 2 (gage height, 2.84 ft or 0.866 m), no peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum daily discharge, 94 ft^3/s (2.66 m^3/s) Nov. 29.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 30, Dec. 1-11, 31, Jan. 1-5)

1.1	76	1.6	190
1.2	93	1.8	250
1.3	113	2.0	330
1.4	135	2.5	590
1.5	160	2.9	865

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	258	200	190	205	214	199	425	530	235	152	148
2	294	254	205	210	205	202	196	420	706	244	150	145
3	322	254	208	215	205	199	199	386	638	278	147	139
4	326	254	235	205	205	193	220	361	650	348	145	133
5	306	250	240	200	205	193	274	334	671	384	147	131
6	298	250	200	178	205	199	322	330	685	298	145	130
7	294	250	218	165	202	205	357	348	645	270	145	128
8	290	250	250	155	193	208	415	370	720	256	142	124
9	286	247	245	145	196	220	475	361	657	241	137	124
10	282	248	220	138	199	205	366	436	748	226	142	124
11	278	244	200	155	199	190	352	431	727	220	135	125
12	274	228	196	170	199	205	361	393	632	214	131	126
13	270	224	190	184	205	211	370	384	560	208	128	129
14	270	212	199	217	205	195	339	397	536	202	128	126
15	266	252	193	217	202	184	318	425	519	193	133	123
16	266	254	196	220	205	190	343	415	458	175	131	131
17	262	250	190	220	205	208	352	402	415	164	128	141
18	262	246	175	217	208	196	320	388	402	169	126	140
19	258	244	163	217	205	202	310	393	402	166	126	145
20	258	235	150	211	205	187	302	375	420	163	126	148
21	258	230	147	208	217	196	306	356	397	163	126	147
22	258	240	175	211	211	205	318	360	366	164	122	150
23	258	225	196	202	208	226	357	420	339	172	120	152
24	254	220	205	195	199	226	379	554	322	196	121	161
25	266	235	205	181	187	208	425	572	302	224	136	170
26	266	215	220	190	187	211	456	524	282	208	160	167
27	258	130	224	187	202	217	447	554	270	199	166	158
28	258	110	20[illegible]	190	202	208	425	513	258	184	152	153
29	262	94	181	193	---	193	431	480	241	172	151	155
30	258	180	175	187	---	202	420	453	238	163	146	173
31	254	---	180	193	---	202	---	447	---	157	149	---
TOTAL	8510	6783	6191	5967	5671	6301	10362	13031	14776	6673	4293	4254
MEAN	275	226	200	192	203	203	345	420	493	215	138	142
MAX	326	258	250	220	217	226	475	572	748	384	166	173
MIN	254	94	147	138	187	184	196	330	238	157	120	123
CFSM	.43	.36	.32	.30	.32	.32	.54	.66	.78	.34	.22	.22
IN.	.50	.40	.36	.35	.33	.37	.61	.76	.87	.39	.25	.25
AC-FT	16880	13450	12280	11840	11250	12500	20550	25850	24310	13240	8520	8440

CAL YR 1976 TOTAL 276811 MEAN 756 MAX 4120 MIN 94 CFSM 1.19 IN 16.22 AC-FT 549100
WTR YR 1977 TOTAL 92812 MEAN 254 MAX 748 MIN 94 CFSM .40 IN 5.44 AC-FT 184100

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1976.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.
INSTRUMENTATION.--Temperature recorder since May 5, 1977.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
19...	1200	265	119	8.4	8.0	4.5	--	46	0
NOV									
29...	1355	76	130	--	1.5	3.5	0	--	--
JAN									
16...	1520	225	118	--	6.0	1.0	0	--	--
MAR									
14...	1140	193	121	--	2.5	4.0	2	--	--
APR									
16...	0850	340	98	--	11.0	7.5	1	--	--
MAY									
21...	1335	371	106	--	19.5	11.5	1	--	--
JUN									
17...	1250	414	105	--	21.5	16.0	0	--	--
JUL									
20...	1315	166	123	--	21.0	20.0	0	--	--
AUG									
23...	1435	121	133	7.6	30.5	20.0	0	47	0
SEP									
28...	1130	154	124	--	16.0	11.0	1	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT									
19...	16	1.5	6.3	23	.4	.7	43	13	57
NOV									
29...	--	--	--	--	--	--	--	--	--
JAN									
16...	--	--	--	--	--	--	--	--	--
MAR									
14...	--	--	--	--	--	--	--	--	--
APR									
16...	--	--	--	--	--	--	--	--	--
MAY									
21...	--	--	--	--	--	--	--	--	--
JUN									
17...	--	--	--	--	--	--	--	--	--
JUL									
20...	--	--	--	--	--	--	--	--	--
AUG									
23...	16	1.8	11	33	.7	1.3	68	0	56
SEP									
28...	--	--	--	--	--	--	--	--	--

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT									
19...	4.5	1.0	.4	17	84	.11	60.1	.52	.00
NOV									
29...	--	--	--	--	--	--	--	--	--
JAN									
16...	--	--	--	--	--	--	--	--	--
MAR									
14...	--	--	--	--	--	--	--	--	--
APR									
16...	--	--	--	--	--	--	--	--	--
MAY									
21...	--	--	--	--	--	--	--	--	--
JUN									
17...	--	--	--	--	--	--	--	--	--
JUL									
20...	--	--	--	--	--	--	--	--	--
AUG									
23...	5.5	1.5	.6	18	90	.12	29.4	.13	.04
SEP									
28...	--	--	--	--	--	--	--	--	--

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	17.5	12.0	20.5	15.0	23.0	14.5	18.0	11.0
2			---	---	16.5	12.0	18.5	16.0	22.5	16.0	19.0	11.0
3			---	---	16.5	11.0	17.0	14.5	24.0	18.0	19.5	12.5
4			---	---	17.5	12.0	17.0	13.5	22.0	16.5	20.0	12.5
5			10.5	8.5	19.0	12.5	19.5	13.0	21.0	15.5	20.5	13.0
6			8.0	6.0	20.0	14.0	19.0	13.0	21.5	15.5	20.5	13.5
7			9.5	6.5	19.0	15.5	20.5	12.5	21.5	17.0	20.5	14.0
8			9.0	7.0	18.0	15.0	21.5	13.0	22.0	15.5	19.0	13.5
9			11.0	6.5	16.5	14.0	20.5	14.5	22.0	15.0	18.0	11.5
10			10.0	7.5	15.0	12.5	21.0	13.5	22.5	14.5	18.5	11.0
11			10.5	6.5	16.5	12.5	21.5	13.0	22.5	15.0	18.5	12.0
12			13.5	6.5	18.0	12.0	22.5	14.0	23.5	15.5	18.0	12.0
13			16.0	8.5	17.0	13.0	22.0	16.0	23.0	15.5	18.0	11.5
14			15.0	8.5	17.0	12.5	22.0	13.5	21.0	16.0	17.0	11.5
15			13.5	8.0	18.5	11.5	23.0	14.0	23.0	15.0	18.0	13.5
16			11.0	8.5	19.0	12.0	23.5	15.5	22.0	15.5	15.5	12.5
17			11.0	6.5	19.5	11.5	23.5	16.0	21.5	16.0	15.5	12.0
18			9.5	6.5	19.5	13.5	23.0	16.0	23.5	18.5	15.5	10.0
19			13.0	6.5	19.0	13.0	22.5	16.5	24.0	16.5	14.0	11.5
20			14.0	7.0	17.0	13.0	22.5	15.5	22.0	16.0	15.5	11.0
21			14.5	8.0	19.0	12.0	22.5	17.5	22.0	16.5	12.0	9.0
22			14.0	9.0	20.5	13.0	22.0	18.0	22.0	16.0	14.0	8.5
23			12.5	10.0	22.0	14.5	24.0	17.5	22.0	14.5	11.5	7.5
24			10.5	8.5	22.5	14.5	21.5	18.0	19.0	15.5	13.5	10.0
25			13.5	8.0	22.5	15.0	22.0	15.0	16.5	15.0	13.5	10.0
26			12.5	9.5	22.5	15.0	23.5	16.5	18.0	14.0	14.5	9.5
27			12.0	8.0	22.0	15.0	23.0	15.0	16.0	11.5	14.5	9.0
28			13.0	6.5	22.0	14.0	23.0	15.5	16.5	11.5	14.5	10.5
29			13.0	6.5	22.0	14.5	22.5	16.0	19.0	14.0	13.5	11.0
30			15.0	6.5	21.5	13.5	22.5	14.5	18.0	13.5	12.5	9.0
31			18.0	9.5	---	---	22.5	14.5	16.0	11.0	---	---
MONTH			18.0	6.0	22.5	11.0	24.0	12.5	24.0	11.0	20.5	7.5
YEAR	24.0	6.0										

13190000 ANDERSON RANCH RESERVOIR AT ANDERSON RANCH DAM, ID

LOCATION.--Lat 43°21'30", long 115°26'40", in SE¼ sec.1, T.1 S., R.8 E., Elmore County, Hydrologic Unit 17050113, Boise National Forest, at inlet structure of outlet works of Anderson Ranch Dam on South Fork Boise River, 1.5 mi (2.4 km) downstream from Camas Creek, 3 mi (4.8 km) northwest of Bennett, and at mile 43.5 (70.0 km).

DRAINAGE AREA.--980 mi² (2,540 km²), approximately.

PERIOD OF RECORD.--December 1945 to current year.

REVISED RECORDS.--WRD Idaho 1969: 1968(m).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to June 8, 1962, nonrecording gage or supplementary gage in powerhouse read once daily.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-ft (572 hm³) between elevations 3,992 (1,216.8) and 4,196 ft (1,278.9 m), top of spillway gates. Elevation of spillway crest, 4,174 ft (1,272.2 m), and of top of dam, 4,206 ft (1,281.9 m). Dead storage below 3,992 ft (1,216.8 m) is 28,980 acre-ft (35.7 hm³). Figures given herein represent usable contents. Water is used for irrigation in Boise valley and for power production.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 472,800 acre-ft (583 hm³) June 26, 1971 (elevation, 4,197.82 ft or 1,279.495 m); no usable contents prior to Jan. 27, 1946; minimum since full capacity was attained June 21, 1951, 63,830 acre-ft (78.7 hm³) Jan. 6, 1962 (elevation, 4,058.35 ft or 1,236.985 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 385,500 acre-ft (475 hm³) June 23 (elevation, 4,178.33 ft or 1,273.555 m); minimum, 98,200 acre-ft (121 hm³) Apr. 21 (elevation, 4,080.45 ft or 1,243.721 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,080.0	97,400	4,140.0	246,100
4,090.0	116,100	4,160.0	314,400
4,100.0	137,500	4,180.0	392,400
4,120.0	187,700		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	376900	381000	384200	385000	371000	370200	371900	380700	331000	273900	195400	119000
2	377000	381000	383900	385200	370600	370200	372100	378900	330200	271400	192700	117500
3	377500	381000	383800	385400	370300	370200	372300	376700	329300	269100	190000	116100
4	377800	381000	383800	385300	370000	370200	372300	374600	328300	266400	187300	114700
5	378000	381200	383800	384400	369900	370200	372500	372500	327300	264000	184600	113200
6	378300	381300	383900	384000	369900	370400	373200	370200	325600	261400	181800	111700
7	378500	381500	383900	382800	369700	370500	373700	368200	324100	258900	179000	110200
8	378900	381900	384300	382300	369400	370600	374400	366300	322500	256500	176200	108900
9	379100	382200	384400	381700	369200	370800	375200	364100	320900	254000	173500	107600
10	379200	382400	384600	380600	369100	370600	375800	364100	319400	251600	170800	106300
11	379500	382500	384700	379600	369100	370700	376300	363900	317800	249200	168400	104900
12	379600	382800	384800	379000	369100	370900	376900	363200	316200	246600	165700	103600
13	379900	382900	384900	378500	369200	370900	377400	361200	314500	244200	163200	102700
14	380100	383000	385000	378400	369100	370900	378000	359100	312700	241600	160700	101800
15	380300	383400	385000	378300	369200	370300	378400	357000	310800	239100	158200	100800
16	380500	383600	385000	378300	369400	370300	378700	355000	308700	236500	155500	100400
17	380700	383800	385000	377900	369400	370200	379100	353000	306400	233900	153000	99900
18	380900	384000	385100	377400	369500	370200	379400	350100	304000	231300	150400	99400
19	381300	384200	385100	376700	369600	370500	379900	348000	301900	228600	147900	99000
20	381400	384400	385100	376000	369800	370500	380300	345900	300000	225900	145500	98500
21	381500	384600	385100	374800	370000	370600	380800	343800	297900	223100	143100	98200
22	381400	384800	384900	374600	370000	370600	380900	342400	295700	220800	140900	98200
23	381400	384900	384900	374600	369900	371000	381200	342300	293500	218200	138300	98200
24	381600	385100	384900	374000	370000	371100	381500	341900	291200	215800	135900	98200
25	381800	385400	384900	373500	370000	371200	381700	340100	289000	213300	133500	98200
26	381800	385500	385000	373100	370100	371500	381700	338400	286200	210800	131500	98200
27	381900	385500	384900	372600	370200	371600	381800	336600	283800	208100	129400	98200
28	381600	385300	384900	372300	370200	371900	381900	335500	281300	205600	127200	98300
29	381300	385100	385100	372000	---	371900	381900	334300	282300	203000	125000	98300
30	381200	384400	385100	371900	---	371900	381400	332900	276500	200500	122700	98300
31	381200	---	385000	371300	---	371900	---	332300	---	198000	120400	---
MAX	381900	385500	385100	385400	371000	371900	381900	380700	331000	273900	195400	119000
MIN	376900	381000	383800	371300	369100	370200	371900	332300	276500	198000	120400	98200
(†)	4177.30	4178.07	4178.22	4174.88	4174.61	4175.02	4177.34	4164.86	4149.25	4123.78	4092.10	4080.51
(‡)	+4600	+3200	+600	-13700	-1100	+1700	+9500	-49100	-55800	-78500	-77600	-22100

CAL YR 1976........... ‡ +18300
WTR YR 1977........... ‡ -278300

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13190500 SOUTH FORK BOISE RIVER AT ANDERSON RANCH DAM, ID

LOCATION.--Lat 43°20'30", long 115°28'40", in NW¼ sec.14, T.1 S., R.8 E., Elmore County, Hydrologic Unit 17050113, Boise National Forest, on right bank 600 ft (180 m) upstream from Dixie Creek, 1.8 mi (2.9 km) downstream from Anderson Ranch 2.2 mi (3.5 km) northwest of Bennett, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--982 mi² (2,543 km²).

PERIOD OF RECORD.--April 1943 to current year (includes flow of Dixie Creek prior to October 1946).

GAGE.--Water-stage recorder. Datum of gage is 3,830.0 ft (1,167.38 m) above mean sea level.

REMARKS.--Records good except those for January to March, which are fair. Flow regulated by Anderson Ranch Reservoir 1.8 mi (2.9 km) upstream (see sta 13190000) beginning Dec. 15, 1945. Flow of Little Camas Creek is stored in Little Camas Reservoir (capacity, 22,300 acre-ft or 27.5 hm³, no spill most years) and diverted out of basin through Little Camas Canal (see sta 13189000) for irrigation of about 5,000 acres or 240 hm² (1966 determination).

AVERAGE DISCHARGE.--34 years, 1,018 ft³/s (28.83 m³/s), 737,500 acre-ft/yr (909 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,850 ft³/s (279 m³/s) May 25, 1956 (gage height, 10.56 ft or 3.219 m); minimum, 0.1 ft³/s (0.003 m³/s) Nov. 13, 1959; minimum gage height, 0.99 ft (0.302 m) Feb. 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft³/s (47.6 m³/s) June 18 (gage height, 4.91 ft or 1.497 m); minimum daily, 178 ft³/s (5.04 m³/s) Sept. 30.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 3-5, Apr. 20 to May 19, Sept. 4-30)

2.4	158	3.5	594
2.6	219	4.0	899
3.0	366	5.0	1,770

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	442	403	195	485	297	226	773	1150	1560	1430	872
2	223	320	438	195	422	258	197	1540	1180	1560	1440	838
3	226	324	320	290	390	266	200	1530	1190	1560	1450	858
4	223	239	219	373	366	245	213	1530	1190	1550	1450	852
5	222	222	213	725	347	211	200	1530	1200	1550	1460	865
6	225	213	210	476	195	195	200	1540	1570	1560	1480	858
7	223	216	213	786	360	273	200	1540	1600	1560	1470	865
8	219	213	210	469	322	219	203	1540	1650	1560	1480	773
9	220	200	213	468	359	195	203	1530	1650	1460	1500	773
10	224	200	210	787	303	195	203	525	1640	1460	1480	767
11	222	200	210	744	254	202	197	620	1600	1460	1370	786
12	222	206	206	669	217	195	194	658	1590	1470	1380	786
13	216	206	210	514	195	195	194	1530	1600	1470	1380	599
14	222	210	213	259	280	651	194	1540	1600	1460	1380	584
15	219	210	243	256	195	532	191	1550	1610	1460	1380	599
16	222	203	236	195	195	250	191	1550	1610	1470	1390	408
17	222	200	236	600	222	208	197	1550	1620	1480	1390	408
18	222	216	203	611	222	213	191	1570	1610	1470	1400	412
19	223	222	206	614	234	203	197	1560	1580	1480	1420	412
20	260	219	206	612	195	200	191	1560	1570	1480	1290	222
21	302	219	246	1030	221	200	194	1560	1550	1490	1290	203
22	469	219	298	321	246	210	260	1570	1570	1500	1300	210
23	222	222	294	232	367	203	271	579	1560	1510	1310	206
24	222	213	253	465	219	200	268	956	1570	1510	1320	210
25	222	222	203	463	257	200	464	1580	1560	1510	1330	206
26	290	222	203	457	220	197	451	1580	1560	1530	1230	206
27	290	222	387	475	195	200	451	1580	1570	1520	1230	203
28	395	219	203	396	209	203	451	1160	1560	1410	1240	213
29	554	222	203	336	---	257	487	1160	1570	1420	1250	210
30	354	569	203	309	---	222	832	1160	1500	1420	1260	178
31	286	---	323	498	---	229	---	780	---	1350	1280	---
TOTAL	8079	7230	7634	14820	7692	7524	8111	41131	45580	46250	42460	15582
MEAN	261	241	246	478	275	243	270	1327	1519	1492	1370	519
MAX	554	569	438	1030	485	651	832	1580	1650	1560	1500	872
MIN	216	200	203	195	195	195	191	525	1150	1350	1230	178
AC-FT	16020	14340	15140	29400	15260	14920	16090	81580	90410	91740	84220	30910

CAL YR 1976 TOTAL 355863 MEAN 972 MAX 3660 MIN 150 AC-FT 705900
WTR YR 1977 TOTAL 252093 MEAN 691 MAX 1650 MIN 178 AC-FT 500000

NOTE.--No gage-height record Dec. 31 to Mar. 17.

13190500 SOUTH FORK BOISE RIVER AT ANDERSON RANCH DAM, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1977.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.
INSTRUMENTATION.--Temperature recorder since May 6, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	AIR TEMPER-ATURE (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	AIR TEMPER-ATURE (DEG C)	TEMPER-ATURE (DEG C)
OCT 19...	0945	221	76	1.0	8.0	MAY 22...	0930	1580	90	12.0	5.0
NOV 29...	1145	218	87	.5	8.5	JUN 18...	0820	1570	87	13.5	5.5
JAN 16...	1045	206	88	2.5	4.0	JUL 20...	0930	1460	97	10.5	6.5
MAR 15...	0900	1560	88	-2.0	4.0	AUG 23...	1155	1330	--	20.0	14.8
APR 16...	1140	197	89	19.0	7.0	SEP 21...	1345	218	79	10.6	14.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	6.0	5.0	7.5	6.0	11.0	9.5	16.5	15.5
2			---	---	6.0	5.5	7.0	6.5	10.5	10.0	16.5	15.5
3			---	---	6.0	5.0	7.0	6.0	11.0	9.5	16.5	15.5
4			---	---	6.0	5.0	7.0	6.5	10.5	10.0	17.0	16.0
5			---	---	6.0	5.5	7.5	6.5	11.0	10.0	17.0	16.0
6			5.5	5.0	6.0	5.5	7.5	6.5	11.0	10.5	17.0	16.0
7			5.5	5.0	6.0	5.5	7.5	6.5	11.0	10.5	17.0	16.0
8			5.0	4.5	6.0	5.5	7.5	6.5	11.5	11.0	16.5	15.5
9			5.5	4.5	5.5	5.5	7.5	7.0	11.5	11.0	17.0	16.0
10			5.5	4.5	6.0	5.5	8.0	7.0	12.0	11.0	17.0	16.0
11			6.0	4.5	6.0	5.5	8.5	7.0	12.0	11.0	17.0	16.0
12			6.0	5.0	6.0	5.5	8.5	7.0	12.5	11.5	17.0	16.0
13			5.5	5.0	6.0	5.5	8.5	7.5	12.5	11.5	17.0	15.5
14			5.5	4.5	6.0	5.5	8.0	7.5	12.5	12.0	16.5	15.5
15			5.5	4.5	6.0	5.5	8.5	7.0	13.0	12.0	17.0	15.5
16			5.5	5.0	6.0	5.5	8.5	7.5	13.0	12.5	16.0	14.5
17			5.0	5.0	6.5	5.5	9.0	7.5	13.0	13.0	15.5	14.5
18			5.5	5.0	6.0	5.5	9.0	8.0	13.5	13.0	16.5	14.5
19			5.5	5.0	6.5	5.5	9.5	7.5	14.0	13.0	16.0	14.5
20			5.5	5.0	6.5	5.5	9.0	8.0	14.0	13.5	15.0	12.0
21			5.5	5.0	6.5	6.0	9.5	8.0	14.0	14.0	14.5	12.5
22			5.5	5.0	6.5	5.5	9.5	7.5	14.5	14.0	15.5	12.0
23			6.0	5.0	6.5	6.0	9.5	8.0	15.0	14.5	14.5	12.0
24			5.5	5.0	6.5	6.0	9.5	9.0	15.0	14.0	14.5	13.0
25			5.5	5.0	6.5	6.0	9.5	8.5	15.0	15.0	15.0	12.5
26			6.0	5.0	7.0	6.0	10.0	8.5	15.5	15.0	15.5	12.5
27			5.5	5.0	7.0	6.0	10.0	9.0	15.5	15.5	15.5	12.5
28			6.0	5.0	7.0	6.0	10.0	9.0	16.0	15.5	15.5	12.5
29			6.0	5.0	7.0	6.0	10.0	9.0	16.0	15.5	14.0	12.5
30			6.0	5.0	7.5	6.0	10.5	9.0	16.5	15.5	13.5	12.0
31			6.5	5.0	---	---	10.5	9.5	17.0	16.0	---	---
MONTH			6.5	4.5	7.5	5.0	10.5	6.0	17.0	9.5	17.0	12.0
YEAR	17.0	4.5										

13192200 SOUTH FORK BOISE RIVER AT NEAL BRIDGE, NEAR ARROWROCK DAM, ID

LOCATION.--Lat 43°33'00", long 115°43'14", in NW¼NE¼SE¼ sec.34, T.3 N., R.6 E., Elmore County, Boise National Forest, Hydrologic Unit 17050113, on left bank 200 ft (61 m) upstream from Neal Bridge, 0.5 mi (0.8 km) above high-water line of Arrowrock Dam, 32.3 mi (52 km) downstream from Anderson Ranch Dam, and 10 mi (16 km) southeast of Arrowrock Dam.
PERIOD OF RECORD.--May to September 1977.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1977.
INSTRUMENTATION.--Temperature recorder since May 11, 1977.
COOPERATION.--Station operated in cooperation with U.S. Bureau of Reclamation.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	13.5	7.5	11.0	7.0	15.5	9.5	18.5	14.5
2			---	---	11.5	7.0	10.5	8.0	15.0	10.5	19.0	14.0
3			---	---	12.0	6.5	10.0	7.5	16.0	11.0	19.0	14.5
4			---	---	12.0	6.5	11.0	8.0	15.0	10.5	19.5	14.5
5			---	---	13.0	6.5	12.5	7.5	14.5	11.0	20.0	15.0
6			---	---	12.0	6.5	12.0	7.5	15.0	10.5	20.0	15.0
7			---	---	11.5	7.5	12.5	7.0	14.5	11.5	20.0	15.5
8			---	---	11.5	7.0	12.5	7.5	15.5	11.0	19.5	14.5
9			---	---	9.5	6.5	12.5	8.0	16.0	11.0	18.5	13.5
10			---	---	9.5	6.5	13.0	7.5	16.0	11.0	19.0	14.0
11			9.5	7.0	10.5	6.5	13.0	7.0	16.5	11.5	19.0	14.5
12			11.0	6.0	11.5	6.5	13.5	7.5	16.5	11.5	18.5	14.0
13			11.0	5.5	10.5	6.5	13.0	8.5	17.0	12.0	18.5	14.0
14			9.5	5.5	11.0	6.5	13.5	7.5	15.5	12.0	18.0	14.0
15			9.5	5.0	11.5	6.0	14.0	8.0	17.0	12.0	18.5	15.0
16			8.0	5.5	12.0	6.0	14.0	8.5	17.5	12.5	18.5	14.0
17			7.5	5.0	12.0	6.0	14.0	8.5	16.5	12.5	15.0	13.5
18			8.5	5.0	11.5	6.5	14.0	8.5	18.0	14.0	15.5	14.0
19			9.5	5.5	12.0	7.0	14.0	9.0	18.0	13.5	15.5	14.0
20			10.0	5.0	15.5	7.0	14.0	8.5	18.0	14.0	14.5	13.0
21			10.0	5.0	12.0	6.5	14.5	9.5	18.0	14.0	13.0	11.0
22			9.0	5.5	12.5	6.5	14.0	9.5	18.0	14.0	12.5	11.0
23			9.0	6.5	12.5	7.0	15.0	9.5	18.5	13.5	11.5	10.5
24			9.0	7.0	12.5	7.0	13.0	10.5	17.5	14.0	12.0	10.5
25			10.0	5.5	13.0	7.0	14.0	9.5	15.5	14.5	13.5	11.5
26			9.0	6.0	12.5	7.0	15.0	9.5	16.5	14.5	14.0	13.0
27			8.5	6.0	12.5	7.0	14.5	9.5	16.5	13.5	14.0	13.0
28			10.0	5.0	12.5	6.5	15.5	9.5	17.5	14.0	15.0	13.0
29			10.5	5.5	12.0	7.0	15.0	9.5	18.0	15.5	14.5	13.0
30			11.0	5.5	12.5	6.5	15.0	9.5	17.5	14.5	13.0	10.0
31			13.5	6.5	---	---	16.0	9.5	17.5	14.0	---	---
MONTH			13.5	5.0	15.5	6.0	16.0	7.0	18.5	9.5	20.0	10.0
YEAR	20.0	5.0										

13194000 ARROWROCK RESERVOIR AT ARROWROCK DAM, ID

LOCATION.--Lat 43°35'40", long 115°55'19", in E½ sec.13, T.3 N., R.4 E., Elmore County, Hydrologic Unit 17050112, Boise National Forest, at Arrowrock Dam on Boise River, 14 mi (23 km) east of Boise, and at mile 75.4 (121.3 km).

DRAINAGE AREA.--2,210 mi² (5,724 km²), approximately.

PERIOD OF RECORD.--October 1917 to current year. Published as "at Arrowrock" October 1917 to September 1962.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 ft (1.5 m) in 1937; storage began in 1915. Capacity, 286,600 acre-ft (353 hm³) between elevations 2,974 ft or 906.5 m (9.5 ft or 3.00 m above sluice gate sill) and 3,216 ft or 980.2 m (highest position of movable crest of spillway). Silt deposition at dam has raised the lower storage level and decreased the capacity of the reservoir. Prior to Oct. 1, 1952, contents in publications of the Geological Survey applied from original capacity table and no silt corrections were made. Beginning Oct. 1, 1952, contents applied from revised table, which is the original table reduced by amounts varying from 347 acre-ft (0.428 hm³) at elevation 2,974 ft (906.5 m) to 5,000 acre-ft (6.16 hm³) at elevation 3,085 ft (940.3 m) and above. Water is used for irrigation in Boise valley.

COOPERATION.--Gage readings and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 301,200 acre-ft (371 hm³) May 29, 1948 (elevation, 3,219.1 ft or 981.18 m); no usable contents during period in each of several years when sluice gates were open and natural flow was passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 211,000 acre-ft (260 hm³) Feb. 9 (elevation, 3,188.80 ft or 971.946 m); minimum observed, 170 acre-ft (0.21 hm³) Sept. 22 (elevation, 2,982.00 ft or 908.914 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2982.0	170	3020.0	3,800	3080.0	30,000
2985.0	270	3030.0	5,870	3100.0	49,000
2990.0	500	3040.0	8,270	3130.0	90,500
3000.0	1,160	3050.0	11,900	3160.0	146,000
3010.0	2,210	3060.0	16,800	3190.0	214,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19000	68000	107300	147300	199100	201300	80400	16200	9170	8270	15600	11800
2	20600	69800	109100	148600	200800	198400	77100	15600	8880	9870	15500	10900
3	22300	71500	110700	149800	202200	194100	73900	16200	8550	10800	15400	9800
4	24100	73000	112300	151000	204000	190700	71600	15900	8440	12300	15200	8940
5	25900	74600	113500	152900	205300	186700	68300	15500	8220	13300	15000	8270
6	27100	75900	114900	155000	206600	182800	66700	15200	8440	14100	14900	7750
7	28800	77200	116100	156500	208000	178900	65400	14900	9170	14700	14900	7300
8	30500	78600	117300	158200	209500	175800	65100	14600	9440	15200	14800	7130
9	31900	80000	118600	160000	211000	172700	65100	14000	11000	15600	14800	6770
10	33400	81300	119900	161800	210800	169900	65300	13600	10700	15700	14800	6530
11	34900	82500	121300	163600	210500	166200	64900	12000	10900	15800	14800	6310
12	36500	83800	122600	166000	210000	163100	64600	11600	11100	15900	14500	6090
13	38200	84900	123900	168100	209500	160000	64000	11400	10900	16000	14500	6000
14	39700	85900	125000	170500	209000	156900	63100	12100	10500	16000	14000	4700
15	40900	87000	126600	172100	208500	153400	61000	12300	9950	16000	13700	3600
16	42600	89100	128200	173600	208200	149400	59600	12300	9910	16000	13700	1160
17	44400	90500	129400	175100	208000	144800	58200	12200	9580	16000	13800	1010
18	46200	91900	130400	176200	207800	140400	54500	12000	9240	16000	13500	1010
19	46800	93000	131400	178000	206900	136200	52600	11600	9010	16000	13400	870
20	47500	94400	132400	179800	206000	132000	49500	11700	8950	16000	13400	870
21	49000	95800	133600	181400	205100	127800	46700	11500	8950	16000	13300	620
22	50800	97100	134800	183400	204200	123000	43800	11400	8790	15900	12700	170
23	53000	98500	135600	185300	204000	119500	40400	11200	8140	16000	12400	740
24	54200	99800	136600	187200	203800	115200	36200	9910	8760	16000	12300	770
25	55300	101200	137600	188600	203500	110200	32900	10800	8410	16200	12400	770
26	56600	102600	138400	190500	202800	105700	29300	11000	8330	16500	12500	770
27	58700	103400	139200	191900	202200	101400	26300	11200	8060	16700	12500	770
28	60800	104200	142400	193100	201500	98700	22800	11400	7910	16700	12400	740
29	63000	105000	144000	194500	---	94100	19100	10700	7750	16400	12400	740
30	64700	105800	144800	196000	---	88900	16900	10300	7980	16300	12000	740
31	66300	---	147700	197400	---	84400	---	9800	---	16100	11800	---
MAX	66300	105800	147700	197400	211000	201300	80400	16200	11100	16700	15600	11800
MIN	19000	68000	107300	147300	199100	84400	16900	9800	7750	8270	11800	170
(†)	3118.73	3139.00	3160.80	3183.30	3185.00	3126.20	3060.30	3044.80	3038.90	3058.80	3049.80	2994.00
(‡)	+49000	+39500	+41900	+49700	+4100	-117100	-67500	-7100	-1820	+8120	-4300	-11060

CAL YR 1976........... ‡ -117600
WTR YR 1977........... ‡ -16560

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13200000 MORES CREEK ABOVE ROBIE CREEK, NEAR ARROWROCK DAM, ID

LOCATION.--Lat 43°38'53", long 115°59'20", in SE¼SW¼ sec.28, T.4 N., R.4 E., Boise County, Hydrologic Unit 17050112, on left bank at State roadside park, 1.7 mi (2.7 km) upstream from Robie Creek, 5.0 mi (8.0 km) northwest of Arrowrock Dam, and at mile 5.8 (9.3 km).

DRAINAGE AREA.--399 mi² (1,033 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1958, published as Moore Creek above Robie Creek, near Arrowrock, and October 1958 to September 1962, published as "near Arrowrock."

GAGE.--Water-stage recorder. Altitude of gage is 3,120 ft or 951 m (from topographic map).

REMARKS.--Records good except those for winter period, which are fair. Diversions above station and from Robie Creek for irrigation of about 900 acres (360 hm²).

AVERAGE DISCHARGE.--27 years, 299 ft³/s (8.468 m³/s), 10.18 in/yr (259 mm/yr), 216,600 acre-ft/yr (267 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,440 ft³/s (154 m³/s) Dec. 23, 1955 (gage height, 9.55 ft or 2.911 m); minimum, 7.4 ft³/s (0.210 m³/s) Aug. 18, 19, 1977 (gage height, 1.71 ft or 0.521 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 297 ft³/s (8.41 m³/s) June 10, 11 (gage height, 3.37 ft or 1.027 m), no peak above base of 800 ft³/s (22.6 m³/s); minimum, 7.4 ft³/s (0.210 m³/s) Aug. 18, 19 (gage height, 1.71 ft or 0.521 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27 to Mar. 4)

1.7	7	2.4	72
1.8	11	2.8	138
1.9	16.2	3.2	243
2.1	35		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	66	52	48	55	85	82	104	119	40	14	31
2	60	66	54	51	51	81	80	114	112	42	13	28
3	62	66	56	53	47	78	83	107	107	44	12	25
4	63	66	59	54	46	75	96	109	100	46	11	22
5	62	66	56	47	45	77	123	100	94	46	12	20
6	62	65	53	31	45	76	143	100	88	42	12	18
7	61	65	57	30	46	79	154	104	83	37	11	17
8	61	63	65	30	48	83	188	112	85	34	12	16
9	60	65	63	30	50	110	210	110	80	31	12	16
10	60	63	59	33	52	129	173	123	188	30	12	16
11	60	63	54	36	56	119	154	139	243	28	11	16
12	58	63	52	39	60	110	149	127	178	26	11	16
13	58	56	51	44	66	105	147	117	143	24	11	16
14	58	58	52	51	72	99	139	112	127	22	10	16
15	58	67	53	57	80	92	125	107	117	21	10	16
16	58	69	50	60	80	88	125	104	107	19	9.0	16
17	58	69	48	58	80	88	135	105	96	17	8.0	22
18	58	67	45	57	80	86	125	102	88	15	8.0	25
19	58	66	40	53	80	85	116	100	82	15	8.0	25
20	58	65	31	51	80	82	109	99	82	14	9.0	29
21	60	63	39	47	83	80	107	94	97	14	9.0	33
22	60	63	50	49	87	82	110	89	83	14	9.0	33
23	61	62	60	46	82	89	116	156	73	26	8.0	34
24	61	60	60	43	80	89	123	222	67	27	10	50
25	69	69	60	41	74	85	125	199	61	36	15	70
26	72	53	64	40	77	88	127	170	56	35	25	58
27	67	43	62	40	77	91	121	182	52	27	27	48
28	66	39	55	41	80	86	110	163	48	22	28	44
29	65	44	47	42	---	76	107	151	46	19	28	44
30	66	50	46	43	---	80	104	139	43	16	25	58
31	66	---	45	52	---	79	---	127	---	15	30	---
TOTAL	1904	1840	1638	1397	1859	2752	3806	3887	2945	844	430.0	876
MEAN	61.4	61.3	52.8	45.1	66.4	88.8	127	125	98.2	27.2	13.9	29.3
MAX	72	69	65	60	87	129	210	222	243	46	30	70
MIN	58	39	31	30	45	75	80	89	43	14	8.0	16
CFSM	.15	.15	.13	.11	.17	.22	.32	.31	.25	.07	.04	.07
IN.	.18	.17	.15	.13	.17	.26	.35	.36	.27	.08	.04	.08
AC-FT	3780	3650	3250	2770	3690	5460	7550	7710	5840	1670	853	1740

CAL YR 1976 TOTAL 100665.0 MEAN 275 MAX 1940 MIN 31 CFSM .69 IN 9.39 AC-FT 199700
WTR YR 1977 TOTAL 24180.0 MEAN 66.2 MAX 243 MIN 8.0 CFSM .17 IN 2.25 AC-FT 47960

13200000 MORES CREEK ABOVE ROBIE CREEK, NEAR ARROWROCK DAM, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-72, 1975 to current year.
PERIOD OF DAILY RECORD.--December 1964 to July 1972.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C on several days during July and August 1969; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 12...	1200	56	131	8.3	15.0	10.0	0	49	0	16
NOV 16...	1515	69	119	7.9	13.5	7.0	3	42	0	14
JAN 06...	1530	31	87	--	-1.0	.5	--	--	--	--
FEB 17...	1520	80	108	--	15.5	1.0	1	--	--	--
MAR 28...	1040	86	112	--	2.0	2.0	3	--	--	--
APR 26...	1355	128	92	--	18.5	13.0	2	--	--	--
JUN 09...	1525	77	101	--	21.5	20.0	3	--	--	--
JUL 25...	0930	34	85	--	28.5	22.0	0	--	--	--
SEP 06...	1100	18	130	8.0	23.0	16.5	--	55	0	18

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 12...	2.2	6.7	22	.4	1.0	71	0	58	3.6
NOV 16...	1.8	6.0	23	.4	.8	68	0	56	2.7
JAN 06...	--	--	--	--	--	--	--	--	--
FEB 17...	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--
JUL 25...	--	--	--	--	--	--	--	--	--
SEP 06...	2.4	6.3	24	.5	1.1	78	0	64	12

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 12...	.9	.3	17	83	.11	12.7	.01	.02	--
NOV 16...	.9	.6	16	76	.10	14.2	.03	.04	--
JAN 06...	--	--	--	--	--	--	--	--	--
FEB 17...	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	11
JUN 09...	--	--	--	--	--	--	--	--	--
JUL 25...	--	--	--	--	--	--	--	--	--
SEP 06...	1.0	.6	15	97	.13	4.79	.03	.03	--

13201500 LUCKY PEAK LAKE NEAR BOISE, ID

LOCATION.--Lat 43°31'31", long 116°03'15", in SW¼NW¼ sec.12, T.2 N., R.3 E., Ada County, Hydrologic Unit 17050112, at outlet control tower at Lucky Peak Dam on Boise River, 2 mi (3 km) upstream from diversion dam for New York Canal, 7 mi (11 km) downstream from Mores Creek, 9 mi (14 km) southeast of Boise, and at mile 63.8 (102.7 km).

DRAINAGE AREA.--2,680 mi² (6,940 km²), approximately.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 13, 1955, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began Oct. 16, 1954. Dam completed in February 1955. Capacity, 307,040 acre-ft (378.6 hm³) between elevations 2,827.0 ft or 861.67 m (sill of outlet gates) and 3,060.0 ft or 932.69 m (spillway crest). Minimum proposed operating level, 2,905.0 ft or 885.44 m (28,770 acre-ft or 35.5 hm³), but all storage can be released. Water is stored for flood control and irrigation of lands in Boise valley.

COOPERATION.--Gage-height record and capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 305,130 acre-ft (376 hm³) June 25, 1955 (elevation, 3,059.32 ft or 932.481 m); minimum since near-full capacity was attained on June 25, 1955, 28,630 acre-ft (35.3 hm³) Dec. 21, 1961 (elevation, 2,904.83 ft or 885.392 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 294,200 acre-ft (363 hm³) Apr. 17, 20 (elevation, 3,055.37 ft or 931.277 m); minimum, 36,990 acre-ft (45.6 hm³) Sept. 13 (elevation, 2,914.57 ft or 888.361 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,910.0	32,900	2,980.0	125,100
2,920.0	42,200	3,000.0	162,800
2,930.0	52,700	3,020.0	205,600
2,940.0	64,600	3,040.0	253,600
2,960.0	92,400	3,060.0	307,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174800	105800	96010	85770	82940	120300	276500	285100	249600	207500	119600	54360
2	170200	105500	95650	85480	82960	125300	280700	282500	248800	203400	117200	53690
3	165600	105200	95330	85260	82930	130200	284400	280400	248200	199500	114900	52920
4	160900	104900	95040	84950	82920	135000	286800	278400	247400	195800	112500	51930
5	156200	104600	94730	84650	82890	140100	289500	276600	246500	192300	110000	50630
6	151700	104300	94320	83560	82890	144500	291500	274800	245700	189000	107600	49130
7	147000	104000	94090	83940	89670	149400	292500	273200	245200	186000	105100	47530
8	142700	103600	93770	83740	82900	153900	293100	271700	244700	183000	102700	45760
9	138600	103300	93460	83650	84040	159000	293600	270400	244000	180000	100400	43840
10	134600	103000	93220	83560	85710	163300	293800	269200	243700	177400	98060	41940
11	130600	102700	92900	83540	87620	168200	293600	267500	243800	174300	95760	39950
12	126600	102400	92570	83460	89340	172600	293200	265400	243700	171400	93460	37940
13	122500	102000	92200	83440	91070	176900	293000	264000	243200	168600	92720	36990
14	118400	101700	91870	83390	92800	182300	293300	263000	242600	165800	88860	37230
15	115500	101400	91540	83320	94500	187900	293300	262200	242000	163100	86460	38140
16	113000	101100	91240	83290	96190	193400	293600	261500	241200	160300	83950	38880
17	110500	100700	90890	83230	97960	198900	294200	260700	240300	157400	81450	38880
18	109900	100500	90560	83200	98100	203400	294000	259700	239200	154600	79030	38590
19	110000	100200	90200	83160	101400	208600	294000	258700	237900	151800	76770	39090
20	109800	99840	89830	83120	103100	214400	294200	257900	236600	148900	74450	39270
21	109500	99510	89460	83080	104700	219500	293800	256900	235200	146200	72150	39840
22	109200	99220	89130	83080	106500	224300	293600	255900	233600	143600	69740	40040
23	108800	98950	88740	83080	108200	229900	293800	255000	231500	140800	67260	40290
24	108400	98560	88430	83080	109900	235600	293900	253800	229100	138200	64910	40540
25	108200	98240	88070	83060	111400	241200	293900	253200	226700	135600	62620	41000
26	107900	97930	87750	83050	112900	246600	293400	253200	224200	133400	60660	41650
27	107500	97540	87500	83030	114700	251700	292800	253400	221500	131100	59260	42360
28	107200	97090	87150	83000	116500	256500	292300	253300	218800	128800	58160	42980
29	106800	96700	86810	83000	---	261400	290500	252900	215100	126600	57120	43650
30	106500	96350	86430	82990	---	267100	287900	252200	211600	124400	56030	43980
31	106200	---	86090	83000	---	272300	---	251000	---	122000	55080	---
MAX	174800	105800	96010	85770	116500	272300	294200	285100	249600	207500	119600	54360
MIN	106200	96350	86090	82990	82890	120300	276500	251000	211600	122000	55080	36990
(†)	2968.80	2962.60	2955.78	2953.65	2975.03	3047.23	3053.09	3039.00	3022.65	2978.25	2932.09	2921.82
(‡)	-73300	-9850	-10260	-3090	+33500	+155800	+15600	-36900	-39400	-89600	-66920	-11100

CAL YR 1976........... ‡ +16340
WTR YR 1977........... ‡ -135520

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13202000 BOISE RIVER NEAR BOISE, ID

LOCATION.--Lat 43°31'40", long 116°03'31", in NE¼ sec.11, T.2 N., R.3 E., Ada County, Hydrologic Unit 17050112, at gate-control house at outlet works of Lucky Peak Lake, 1.8 mi (2.9 km) upstream from diversion dam for New York Canal, 7.5 mi (12.1 km) downstream from mouth of Mores Creek, 9 mi (14.5 km) southeast of Boise, and at mile 63.6 (102.3 km).

DRAINAGE AREA.--2,680 mi^2 (6,940 km^2), approximately. Mean altitude, 5,910 ft (1,801 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1895 to September 1916 (no winter records 1904-5, 1907), November 1950 to September 1954 (discharge measurements only), October 1954 to current year. Published as "near Highland" 1905-15 and as "below Moore Creek, near Arrowrock" 1916.

REVISED RECORDS.--WSP 1347: 1895-1901, 1904.

GAGE.--Remote gate-opening recorder and nonrecording gage on each of six slide gates, remote recorder and nonrecording gage on hollow-jet valve, and remote water-stage recorder on Lucky Peak Lake. Elevation of sills of six slide gates, 2,827.0 ft or 861.670 m (levels by Corps of Engineers). Prior to Mar. 18, 1905, nonrecording gages at sites about 1 mi (1.6 km) downstream at different datums. Mar. 18, 1905, to Mar. 20, 1915, nonrecording gages, and Mar. 21, 1915, to Sept. 30, 1916, water-stage recorders at sites 5 to 7 mi (8 to 11 km) upstream at different datums.

REMARKS.--Records good. Daily discharge computed from relations between discharge, head, and gate openings adjusted on the basis of current-meter measurements. Unadjusted discharges furnished by U.S. Corps of Engineers. Flow regulated by Lucky Peak Lake (see sta 13201500), Arrowrock Reservoir (see sta 13194000), and Anderson Ranch Reservoir (see sta 13190000). Diversions above station for irrigation of about 2,300 acres (9.31 hm^2) in the basin and about 5,000 acres (20.2 hm^2) outside the basin near Mountain Home (1966 determination).

COOPERATION.--Records of gate operation, discharge, stage in Lucky Peak Lake, and gate rating curves furnished by Corps of Engineers.

AVERAGE DISCHARGE.--40 years (1896, 1898-1903, 1906, 1908-16, 1955-77), 2,986 ft^3/s (84.56 m^3/s), 2,163,000 acre-ft/yr (2,667 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,500 ft^3/s (1,010 m^3/s) June 14, 1896; no flow on several days in 1954, 1955, 1957-59, 1961, 1969, 1974, when gates were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,870 ft^3/s (110 m^3/s) June 29; minimum daily, 41 ft^3/s (1.16 m^3/s) Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2520	260	260	260	90	90	163	3800	2900	3840	3170	2090
2	2520	260	260	260	90	90	240	3800	2900	3820	3170	2060
3	2520	260	260	260	90	90	260	3780	2940	3790	3170	2060
4	2520	260	260	260	90	90	748	3730	3040	3760	3190	2080
5	2520	260	260	260	90	90	555	3690	3090	3700	3200	2110
6	2520	260	260	260	90	90	815	3590	3170	3630	3200	2180
7	2520	260	260	260	90	90	970	3470	3240	3550	3200	2220
8	2320	260	260	163	90	90	1140	3410	3350	3490	3180	2250
9	2210	260	260	115	90	90	1270	3260	3470	3470	3140	2270
10	2210	260	260	115	90	90	1400	3080	3470	3470	3100	2220
11	2210	260	260	115	90	90	1570	2920	3290	3450	3090	2200
12	2210	260	260	115	90	90	1720	2860	3280	3420	3090	2200
13	2210	260	260	115	90	90	1820	2840	3300	3410	3090	1830
14	2210	260	260	115	90	90	1850	2890	3300	3410	3090	1120
15	1670	260	260	115	90	90	1930	2890	3230	3410	3120	939
16	1390	260	260	115	90	90	1970	2890	3230	3410	3140	842
17	1390	260	260	115	90	90	2080	2930	3240	3410	3140	842
18	479	260	260	115	90	90	2220	3070	3240	3430	3140	842
19	41	260	260	115	90	90	2360	3050	3240	3440	3110	703
20	208	260	260	115	90	90	2480	3000	3240	3420	3060	523
21	225	260	260	107	90	90	2620	3000	3280	3410	3040	468
22	260	260	260	90	90	90	2860	3000	3350	3390	3070	468
23	260	260	260	90	90	90	3030	2960	3430	3380	3090	468
24	260	260	260	90	90	90	3110	2790	3510	3380	3050	468
25	260	260	260	90	90	90	3220	2720	3600	3310	2940	468
26	260	260	260	90	90	90	3430	2750	3640	3210	2760	364
27	260	260	260	90	90	90	3560	2770	3670	3150	2520	277
28	260	260	260	90	90	90	3630	2770	3750	3140	2390	260
29	260	260	260	90	---	90	3700	2770	3870	3140	2330	260
30	260	260	260	90	---	90	3780	2770	3840	3160	2230	260
31	260	---	260	90	---	90	---	2840	---	3170	2160	---
TOTAL	41223	7800	8060	4370	2520	2790	60501	96090	100100	106570	92370	37342
MEAN	1330	260	260	141	90.0	90.0	2017	3100	3337	3438	2980	1245
MAX	2520	260	260	260	90	90	3780	3800	3870	3840	3200	2270
MIN	41	260	260	90	90	90	163	2720	2900	3140	2160	260
AC-FT	81770	15470	15990	8670	5000	5530	120000	190600	198500	211400	183200	74070

CAL YR 1976 TOTAL 1070548 MEAN 2925 MAX 8500 MIN 41 AC-FT 2123000
WTR YR 1977 TOTAL 559736 MEAN 1534 MAX 3870 MIN 41 AC-FT 1110000

13202000 BOISE RIVER NEAR BOISE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-67, 1970-71, 1973 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1968-69, 1972, 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANFOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
OCT 07...	1600	2610	83	8.5	22.0	18.5	30	0
NOV 22...	1415	258	80	--	12.0	9.0	--	--
JAN 06...	1125	262	120	--	-5.0	1.5	--	--
FEB 10...	1430	89	88	--	--	8.0	--	--
MAR 23...	1300	91	89	--	18.5	6.0	--	--
APR 29...	1045	3750	90	--	11.5	6.5	--	--
JUL 23...	1550	3460	83	--	31.5	17.0	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	ALKALINITY, TOTAL (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT 07...	9.7	1.3	3.9	22	.3	.7	41	34	3.4
NOV 22...	--	--	--	--	--	--	--	--	--
JAN 06...	--	--	--	--	--	--	--	--	--
FEB 10...	--	--	--	--	--	--	--	--	--
MAR 23...	--	--	--	--	--	--	--	--	--
APR 29...	--	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVFD (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 07...	1.0	.3	11	52	.07	366	.15	.03
NOV 22...	--	--	--	--	--	--	--	--
JAN 06...	--	--	--	--	--	--	--	--
FEB 10...	--	--	--	--	--	--	--	--
MAR 23...	--	--	--	--	--	--	--	--
APR 29...	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--

13203500 LAKE LOWELL NEAR CALDWELL, ID

LOCATION.--Lat 43°34'42", long 116°44'28", in NW¼SE¼ sec.19, T.3 N., R.3 W., Canyon County, Hydrologic Unit 17050114, on outlet structure at lower embankment, 5.5 mi (8.8 km) southwest of Caldwell; and lat 43°33'30", long 116°38'55", in NW¼NW¼ sec.36, T.3 N., R.3 W., Canyon County, on outlet structure at upper embankment 5 mi (8 km) west of Nampa.

PERIOD OF RECORD.--October 1917 to current year. Prior to October 1945, published as Deer Flat Reservoir near Caldwell.

GAGE.--Nonrecording gage. Datum of gages is 2,500.5 ft (762.2 km) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-ft (218 hm³), between gage heights 0.0 ft (0.0 m), sill of outlet gates and 30.0 ft (9.14 m), maximum operating level. Dead storage, about 13,000 acre-ft (16.0 hm³). Below gage height 12.0 ft (3.66 m), lake divides into two pools. Lake receives water from Boise River through New York Canal of Boise project and small amounts from local drainage. Water is used for irrigation of lower project lands, some of which are outside the Boise River basin. Figures given herein represent usable contents.

COOPERATION.--Gage readings and capacity table furnished by Water District 63.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 178,900 acre-ft (221 hm³) Apr. 27, 28, 1922, Apr. 24, 1932 (gage height, 30.18 ft or 9.20 m); minimum observed, 5,390 acre-ft (6.65 hm³) Oct. 22, 1924 (gage height, 3.27 ft or 1.00 m, upper pool; 0.85 ft or 0.26 m, lower pool).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 123,900 acre-ft (153 hm³) Oct. 20-22 (gage height, 24.02 ft or 7.321 m); minimum observed, 21,300 acre-ft (26.3 hm³) Sept. 20-22 (gage height, 7.35 ft or 2.240 m, upper pool; 7.11 ft or 2.167 m, lower pool).

Capacity table (gage height, in feet, and contents, in acre-feet)

(Upper pool)		(Lower pool)		(Lake)	
9.6	17,400	9.4	13,500	12.0	43,100
10	18,400	10	14,800	15.0	60,000
12	23,700	12	19,400	20.0	93,000
				25.0	132,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95100	123500	122700	122600	122500	122000	120000	101100	104200	76900	51800	29800
2	96700	123400	122700	122700	122400	122000	120000	100100	104200	75700	51100	29700
3	98100	123400	122700	122900	122400	122000	120000	99100	103900	74700	50100	29500
4	99600	123300	122700	123100	122400	121800	119700	97900	102900	73900	49100	29300
5	101100	123300	122700	123100	122300	121800	119700	97100	102000	73300	48000	28900
6	102700	123200	122700	122900	122300	121800	119700	97200	101100	72800	46800	28400
7	104200	123200	122700	122800	122300	121800	119700	97300	99500	71900	45900	27900
8	105800	123100	122700	122800	122200	121700	119500	97400	98100	71000	45100	27300
9	107300	123100	122700	122800	122200	121600	119500	97100	96400	70500	44400	26700
10	109000	123200	122700	122800	122200	121600	119500	97800	95300	69700	43500	26300
11	110400	123200	122700	122800	122200	121600	119000	98000	94300	68600	43400	26000
12	111800	123200	122700	122800	122200	121600	118900	98400	94200	68200	41600	25500
13	113300	123200	122700	122700	122200	121500	118900	98500	93600	66700	40600	25200
14	114800	123400	122700	122700	122200	121400	118500	98700	93600	65800	39800	24800
15	116400	123400	122700	122700	122200	121400	118600	98800	93800	65000	38300	24200
16	118900	123400	122700	122700	122200	121400	118300	98600	94000	64400	37500	23500
17	120700	123300	122700	122700	122200	121400	117400	98500	94300	63700	36300	23000
18	122600	123300	122700	122600	122200	121000	117100	98200	94300	62800	35000	22600
19	123800	123300	122700	122700	122200	121000	116300	98300	94100	61900	34200	22100
20	123900	123300	122700	122700	122200	121000	116000	98600	93700	60900	33600	21300
21	123900	123300	122700	122700	122200	121000	115000	98700	92500	60100	33200	21300
22	123900	123200	122700	122700	122200	120700	114200	98700	91200	59100	32100	21300
23	123800	123200	122700	122700	122200	120700	113500	98700	89700	58300	31500	21400
24	123800	123200	122700	122700	122200	120700	112300	98800	87800	58000	30800	21400
25	123700	123200	122700	122600	122100	120500	110600	99200	86400	57200	30700	21400
26	123700	123200	122600	122600	122100	120500	109100	99500	85100	56900	30300	21400
27	123600	123100	122600	122600	122100	120500	107600	100100	82800	56400	30200	21400
28	123600	123100	122600	122600	122100	120500	105600	100700	81200	55600	30400	21400
29	123600	122900	122600	122600	---	120000	104200	101500	79800	54800	30300	22400
30	123600	122700	122600	122500	---	120000	102700	103000	78200	53300	30200	23400
31	123500	---	122600	122500	---	120000	---	103700	---	52600	29900	---
MAX	123900	123500	122700	123100	122500	122000	120000	103700	104200	76900	51800	29800
MIN	95100	122700	122600	122500	122100	120000	102700	97100	78200	52600	29900	21300
(†)	2523.97	2523.88	2523.86	2523.85	2523.80	2523.54	2521.31	2521.45	2517.86	2513.74	-	-
(‡)	+30000	-800	-100	-100	-400	-2100	-17300	+1000	-25500	-25600	-22700	-6500

CAL YR 1976............. ‡ -3100
WTR YR 1977............. ‡ -70100

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

13205500 BOISE RIVER AT BOISE, ID

LOCATION.--Lat 43°36'33", long 116°12'27", in NE¼SW¼ sec.10, T.3 N., R.2 E., Ada County, Hydrologic Unit 17050114, on right bank at Capitol Boulevard Bridge at Boise and at mile 52.8 (85.0 km).

DRAINAGE AREA.--2,760 mi² (7,150 km²), approximately.

PERIOD OF RECORD.--March 1938 to September 1939 (gage heights only), February 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,675.46 ft (815.480 m) above mean sea level (datum of Corps of Engineers, Boise River Surveys). Prior to Apr. 30, 1943, at site 1 mi (1.6 m) upstream at datum 13.69 ft (4.173 m) higher. Apr. 30 to July 10, 1943, at site 400 ft (120 m) downstream at present datum.

REMARKS.--Records good. Flow regulated by Anderson Ranch Reservoir (see sta 13190000), Arrowrock Reservoir (see sta 13194000), and Lucky Peak Lake (see sta 13201500). New York, Ridenbaugh, and four small canals (see sta 13204500) divert between station near Boise and this station. Diversions above station for irrigation of about 203,000 acres (82,200 hm²) of which about 5,000 acres (2,020 hm²) are outside the basin near Mountain Home, about 130,000 acres (52,600 hm²) are inside the basin below station, and about 50,000 acres (20,200 hm²) are outside the basin near Lake Lowell.

AVERAGE DISCHARGE.--23 years (1955-77), 1,346 ft³/s (38.12 m³/s), 975,200 acre-ft/yr (1,202 hm³/yr), since completion of Lucky Peak Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s (595 m³/s) Apr. 20, 1943 (gage height, 10.00 ft or 3.048 m, site and datum then in use); minimum, 1.3 ft³/s (0.037 m³/s) Feb. 3, 1955 (gage height, 2.21 ft or 0.674 m); minimum daily, 3.5 ft³/s (0.099 m³/s) Jan. 19-23, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s (36.5 m³/s) Apr. 25 (gage height, 3.75 ft or 1.143 m); minimum, 83 ft³/s (2.45 m³/s) Mar. 27, 28, 30, 31 (gage height, 2.45 ft or 0.747 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 16 to Sept. 30;
stage-discharge relation affected by ice Jan. 6-13)

2.4	65	3.0	360
2.5	90	3.4	740
2.6	120	4.0	1,590
2.8	220		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	276	262	276	108	102	120	1230	790	1050	892	611
2	467	276	262	283	105	102	255	1230	778	1050	892	593
3	467	276	262	283	105	102	318	1200	778	1050	906	611
4	476	276	269	276	105	102	262	1150	778	1080	934	642
5	485	269	269	276	102	99	529	1100	814	1110	948	653
6	485	269	262	283	102	99	778	1050	838	1110	920	664
7	485	262	269	283	102	99	730	1020	826	1080	906	642
8	467	269	269	227	102	99	850	962	838	1080	920	631
9	360	269	269	134	102	105	948	850	948	1050	906	642
10	432	269	269	134	102	96	1000	664	1050	1040	878	653
11	432	269	269	134	105	96	1050	602	934	1000	892	631
12	432	269	269	134	105	96	1040	584	850	990	892	631
13	432	269	269	134	105	93	1020	620	864	948	920	575
14	392	262	269	151	108	93	1000	719	878	920	878	593
15	346	262	269	147	105	90	1020	790	920	920	906	548
16	297	262	269	133	105	90	1050	802	948	948	920	467
17	283	262	283	133	105	93	1050	766	948	934	920	458
18	241	262	276	133	102	90	1080	892	948	948	920	458
19	181	262	276	133	105	90	1080	892	976	948	906	449
20	290	262	276	133	105	88	1100	802	948	934	892	467
21	332	255	276	133	102	88	1110	754	906	920	878	449
22	318	255	276	117	105	88	1180	730	934	920	878	432
23	290	255	276	108	102	88	1210	742	962	920	878	432
24	269	255	283	105	105	88	1230	653	976	920	892	449
25	283	255	283	105	102	87	1230	620	976	920	878	449
26	283	262	283	105	102	87	1220	653	990	934	850	392
27	276	262	283	105	102	86	1200	664	976	920	730	297
28	276	262	283	108	99	85	1210	675	990	892	686	262
29	276	262	276	108	---	87	1230	686	1050	892	664	262
30	276	262	276	108	---	83	1230	697	1080	892	620	269
31	276	---	276	105	---	90	---	730	---	892	593	---
TOTAL	11081	7937	8458	5027	2904	2881	28330	25529	27492	30212	26695	15312
MEAN	357	265	273	162	104	92.9	944	824	916	975	861	510
MAX	485	276	283	283	108	105	1230	1230	1080	1110	948	664
MIN	181	255	262	105	99	83	120	584	778	892	593	262
AC-FT	21980	15740	16780	9970	5760	5710	56190	50640	54530	59930	52950	30370

CAL YR 1976 TOTAL 524924 MEAN 1434 MAX 5730 MIN 181 AC-FT 1041000
WTR YR 1977 TOTAL 191858 MEAN 526 MAX 1230 MIN 83 AC-FT 380600

13210050 BOISE RIVER NEAR MIDDLETON, ID

LOCATION.--Lat 43°41'06", long 116°34'22", in SE¼SE¼SE¼NE¼ sec.16, T.4 N., R.2 W., Canyon County Hydrologic Unit 17050114, on right bank 2.9 mi (4.7 km) southeast of Middleton and at mile 29.1 (46.8 km).

DRAINAGE AREA.--3,050 mi^2 (7,900 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1974 to current year (low-flow periods only).

GAGE.--Water-stage recorder. Datum of gage is 2,410 ft (734 m) from topographic map.

REMARKS.--Records fair. Natural flow of stream affected by regulation of Lucky Peak Lake (see sta 13201500) and other upstream storage reservoirs, diversions above station for irrigation of about 296,000 acres (120,000 hm^2), and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Minimum discharge, 38 ft^3/s (1.08 m^3/s) Sept. 4, 1977 (gage height, 3.66 ft or 1.116 m).

EXTREMES FOR CURRENT YEAR.--Minimum discharge, 38 ft^3/s (1.08 m^3/s) Sept. 4 (gage height, 3.66 ft or 1.116 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 11-13)

3.7	42	5.0	360
3.9	65	5.1	398
4.0	78	5.3	477
4.4	157	5.6	605

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	375	356	353	195	195	182	198	65	75	73	70
2	147	383	360	360	198	192	182	235	63	78	83	55
3	150	383	360	371	198	195	242	195	57	77	84	44
4	155	383	356	360	198	195	225	198	60	91	81	42
5	160	371	353	356	195	195	182	221	50	110	73	45
6	168	371	349	338	195	195	375	182	70	103	73	55
7	168	368	345	323	195	201	410	174	69	99	75	55
8	174	371	345	287	192	195	445	171	74	92	73	47
9	147	368	349	259	165	195	518	160	73	78	75	66
10	122	368	353	242	188	208	544	160	157	80	66	80
11	135	368	360	242	188	188	605	92	198	91	63	78
12	147	371	360	252	192	185	514	71	129	88	61	81
13	211	375	364	249	195	182	379	63	110	78	63	91
14	298	371	364	266	201	182	334	80	107	74	52	51
15	316	371	364	242	201	179	327	92	131	69	68	59
16	375	375	356	242	205	177	316	110	150	77	53	51
17	368	371	356	238	201	177	280	92	138	89	46	64
18	371	371	356	235	201	177	273	118	110	91	47	64
19	316	371	353	235	198	171	245	152	91	86	51	71
20	334	371	353	238	198	171	262	110	110	83	45	88
21	429	368	353	235	201	165	273	91	94	57	42	112
22	425	368	360	228	201	168	245	51	77	43	46	98
23	410	371	364	215	192	163	242	133	84	49	47	112
24	383	375	368	205	198	163	259	147	81	69	57	171
25	398	368	364	201	198	165	238	80	89	94	112	182
26	387	364	364	198	195	160	232	63	89	88	160	245
27	375	364	364	195	192	157	198	80	91	88	114	269
28	375	360	356	195	188	163	201	66	73	74	107	208
29	375	360	356	198	---	179	218	74	53	61	92	201
30	375	364	353	195	---	179	192	65	69	71	81	252
31	375	---	356	201	---	182	---	53	---	65	84	---
TOTAL	8709	11118	11070	7954	5464	5599	9138	3777	2812	2468	2247	3107
MEAN	281	371	357	257	195	181	305	122	93.7	79.6	72.5	104
MAX	429	383	368	371	205	208	605	235	198	110	160	269
MIN	122	360	345	195	165	157	182	51	50	43	42	42
AC-FT	17270	22050	21960	15780	10840	11110	18130	7490	5580	4900	4460	6160

13210050 BOISE RIVER NEAR MIDDLETON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 04...	1210	169	213	8.3	13.0	13.5	2	67	0
NOV 15...	1110	396	196	--	5.0	7.0	50	--	--
JAN 03...	1440	354	--	--	5.0	1.5	--	--	--
FEB 09...	1400	180	268	--	9.0	5.0	3	--	--
MAR 28...	1420	180	257	--	7.0	6.5	71	--	--
MAY 05...	1450	211	639	--	9.0	11.0	61	--	--
JUN 14...	1500	115	197	--	30.5	21.5	--	--	--
JUL 20...	1130	80	195	--	28.0	22.0	0	--	--
SEP 06...	1420	54	891	7.9	31.5	22.5	--	90	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 04...	21	3.6	15	32	.8	1.5	99	0	81
NOV 15...	--	--	--	--	--	--	--	--	--
JAN 03...	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--
MAY 05...	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	--	--	--
SEP 06...	28	4.9	20	32	.9	2.0	130	0	110

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 04...	11	5.0	.4	15	124	.17	56.6	.67	.27
NOV 15...	--	--	--	--	--	--	--	--	--
JAN 03...	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--
MAY 05...	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	--	--	--
SEP 06...	24	5.5	.5	17	167	.23	24.4	.25	.11

13204500 DIVERSIONS FROM BOISE RIVER BETWEEN NEAR BOISE AND AT BOISE GAGING STATIONS, ID

Between near Boise and at Boise gaging stations (prior to 1955 water year, published as between Dowling Ranch and Boise gaging stations), six principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during April to September for each canal for years 1919-46, combined daily diversion covering period April to September for years 1947-67, combined daily diversions for water years 1968-75 and daily flow of New York Canal February 1939 to October 1948 are published in reports of Geological Survey. Records of daily diversion for each canal from 1916-77 are on file in office of the Idaho Department of Water Resources. Prior to October 1967, there was no record of October to March diversions except for New York Canal. Miscellaneous diversions or pumping from Boise River above "at Boise" was reported by watermaster to be approximately as follows in acre-ft (m³): October, 93 (115,000); April, 150 (185,000); May, 261 (322,000); June, 318 (392,000); July, 471 (581,000); August, 536 (661,000); and September, 420 (518,000).

Records show summation of discharge for the recorded diversions. Staff gages on canals are read daily or several times weekly and discharge measurements are made weekly. Records furnished by watermaster for Boise River.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1064	.000	.000	.000	.000	.000	1040	2250	2341	2420	2102	776
MAX	2110	.00	.00	.00	.00	.00	2530	2340	2710	2710	2230	1650
MIN	.00	.00	.00	.00	.00	.00	.00	1960	2050	2200	1610	21

CAL YR 1976 MEAN 1444 MAX 3420 MIN .00
WTR YR 1977 MEAN 1010 MAX 2710 MIN .00

BOISE RIVER BASIN

13212995 DIVERSIONS FROM BOISE RIVER BETWEEN AT BOISE AND NEAR PARMA GAGING STATIONS, ID

Between at Boise and near Parma gaging stations (prior to the 1974 water year, published as between at Boise and Notus gaging stations), 27 canals and several small farm laterals divert water from Boise River for irrigation.

Records of daily diversions for each canal for 1916-77 are on file in office of the Idaho Department of Water Resources. Prior to October 1967, no record available of diversions that are usually made during October and March. Miscellaneous diversions or pumping from Boise River below "at Boise" was reported by watermaster to be approximately as follows in acre-ft (m³): October, 93 (115,000); April, 151 (186,000); May, 261 (322,000); June, 319 (393,000); July, 471 (581,000); August, 535 (660,000); September, 421 (519,000).

Records show summation of discharge for the recorded diversions. Staff gages on diversions are read daily or several times weekly, and discharge measurements are made weekly. Records furnished by watermaster for Boise River.

STATION NUMBER 13212995 BOISE R DIVERSIONS FROM AT BOISE TO NR PARMA G S STREAM SOURCE AGENCY USGS
LATITUDE 434654 LONGITUDE 1165817 DRAINAGE AREA DATUM STATE 16 COUNTY 027

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1977	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	487	.000	.000	.000	.000	.000	1274	1716	1775	1917	1745	1336
MAX	1180	.00	.00	.00	.00	.00	1900	2030	1950	2100	1850	1540
MIN	.00	.00	.00	.00	.00	.00	463	1500	1570	1760	1480	921

CAL YR 1976 MEAN 487 MAX 2600 MIN .00
WTR YR 1977 MEAN 858 MAX 2100 MIN .00

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13213000 BOISE RIVER NEAR PARMA, ID

LOCATION.--Lat 43°46'54", long 116°58'17", in NE¼SE¼SE¼ sec.7, T.5 N., R.5 W., Canyon County, Hydrologic Unit 17050114, on left bank at county road crossing, 1.2 mi (1.9 km) west of Parma, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--3,970 mi² (10,300 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to June 1939 (gage heights only), September 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,196.49 ft (669.49 m) above mean sea level. March 1938 to June 1939, nonrecording gage 1.4 mi (2.3 km) upstream at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--6 years, 1,896 ft³/s (53.69 m³/s), 1,374,000 acre-ft/yr (1,694 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,840 ft³/s (222 m³/s) Mar. 3, 1972 (gage height, 13.01 ft or 3.965 m); minimum, 93 ft³/s (2.63 m³/s) Apr. 29, 1977 (gage height, 6.16 ft or 1.88 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 20, 1943, reached a discharge of about 20,000 ft³/s (566 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,610 ft³/s (45.6 m³/s) Oct. 16 (gage height, 8.86 ft or 2.701 m); minimum, 93 ft³/s (2.63 m³/s) Apr. 29 (gage height, 6.16 ft or 1.878 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 8-11)

6.10	80	8.0	915
6.50	173	8.5	1,300
7.0	326	9.0	1,730
7.5	574		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1170	997	908	688	688	318	120	436	161	322	545
2	1130	1170	990	915	688	688	318	166	366	188	294	539
3	1160	1150	990	953	682	695	337	205	311	210	270	493
4	1130	1140	1000	923	682	695	333	290	286	248	267	431
5	1120	1140	1000	908	675	682	280	354	264	286	261	421
6	1110	1120	990	878	675	675	230	411	219	290	280	411
7	1100	1100	982	863	675	682	304	446	219	304	270	379
8	1090	1100	982	844	675	675	280	451	236	294	286	358
9	1080	1100	990	812	675	669	294	527	239	286	301	337
10	975	1100	975	777	675	675	333	551	280	297	273	431
11	967	1100	967	777	669	662	354	499	562	337	242	451
12	945	1080	967	756	675	662	341	446	599	341	222	456
13	967	1080	967	756	675	662	283	397	499	329	227	461
14	1120	1080	960	777	611	656	261	315	488	308	230	461
15	1280	1080	953	777	695	656	245	283	539	308	264	426
16	1490	1070	945	770	695	656	216	304	562	301	248	436
17	1340	1070	930	763	702	649	205	350	477	301	222	477
18	1280	1060	930	756	702	643	194	341	379	301	227	510
19	1250	1060	923	756	702	636	173	421	286	286	236	521
20	1190	1050	915	756	702	611	146	431	261	286	245	499
21	1290	1030	915	749	702	568	136	371	254	270	264	545
22	1330	1030	923	749	708	527	139	337	236	251	283	574
23	1330	[illegible]	923	735	702	527	124	322	219	277	270	574
24	1260	[illegible]	938	715	702	516	108	605	196	304	283	722
25	1280	1030	930	706	702	510	110	521	176	451	345	960
26	1270	1030	930	708	695	504	110	527	166	456	593	893
27	1220	1010	930	695	688	482	101	708	178	416	715	975
28	1220	997	923	695	688	431	106	784	186	416	715	819
29	1210	997	923	695	---	341	99	770	178	345	702	784
30	1200	1000	923	688	---	322	104	763	158	308	611	798
31	1180	---	915	688	---	311	---	636	---	308	545	---
TOTAL	36634	32204	29526	24250	19205	18356	6582	13652	9455	9464	10513	16687
MEAN	1182	1073	952	782	686	592	219	440	315	305	339	556
MAX	1490	1170	1000	953	708	695	354	784	599	456	715	975
MIN	945	997	915	688	611	311	99	120	158	161	222	337
AC-FT	72660	63880	58560	48100	38090	36410	13060	27080	18750	18770	20850	33100

CAL YR 1976 TOTAL 660015 MEAN 1803 MAX 5660 MIN 510 AC-FT 1309000
WTR YR 1977 TOTAL 226528 MEAN 621 MAX 1490 MIN 99 AC-FT 449300

13213000 BOISE RIVER NEAR PARMA, ID--Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	AIR TEMPER- ATURE (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM .7UM-MF (COL./ 100 ML)	FECAL STREP- TOCOCCI KF AGAR (COL. PER 100 ML)	HARD- NESS (CA,MG) (MG/L)
OCT 14...	1200	1110	462	8.2	16.0	13.0	2	10.2	104	356	550	140
NOV 16...	1130	1090	531	8.2	11.0	8.5	5	10.4	95	553	1850	160
DEC 15...	1110	965	505	8.1	-5.0	2.5	10	12.2	96	260	268	160
JAN 12...	1300	784	665	8.2	-5.0	1.0	1	12.3	94	>600	>1000	180
FEB 09...	1230	669	547	8.4	-2.0	5.0	8	12.4	104	137	830	180
MAR 08...	0930	650	562	8.3	10.5	8.5	3	4.6	43	220	296	170
APR 12...	1030	344	383	8.4	15.5	11.5	5	11.6	115	B538	350	110
MAY 10...	1000	523	472	8.2	13.0	12.5	15	8.6	93	B600	B780	140
JUN 07...	1000	219	630	8.2	26.5	22.0	9	6.4	79	627	438	180
JUL 21...	1045	275	589	8.1	33.5	22.5	20	6.7	82	B345	>250	170
AUG 10...	1230	273	575	8.2	26.0	20.0	7	8.2	96	480	1833	180
SEP 08...	1700	364	596	8.3	22.0	19.0	5	10.9	125	309	2330	170

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT 14...	0	39	11	50	42	1.8	4.4	*220	0	180	52	16
NOV 16...	0	44	13	58	43	2.0	5.1	270	0	221	54	18
DEC 15...	0	43	12	55	42	1.9	5.1	250	0	205	57	18
JAN 12...	0	48	14	60	41	2.0	5.5	*250	0	205	64	23
FEB 09...	0	50	14	64	42	2.1	5.9	250	14	228	71	26
MAR 08...	0	48	13	62	43	2.1	4.5	250	0	205	68	21
APR 12...	0	31	8.1	40	43	1.7	3.6	170	5	150	41	13
MAY 10...	0	39	10	54	45	2.0	4.2	220	0	180	57	15
JUN 07...	0	50	13	75	47	2.4	5.0	276	0	226	74	24
JUL 21...	0	48	13	71	46	2.3	5.2	280	0	230	73	22
AUG 10...	0	47	14	73	47	2.4	4.8	260	0	210	68	21
SEP 08...	0	48	13	76	48	2.5	5.3	280	0	230	68	27

* Not a field determination.
B Results based on count outside of ideal colony count range.

13213000 BOISE RIVER NEAR PARMA, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 14...	.5	27	312	308	.42	935	2.1	.84	2.9	13	.25	--
NOV 16...	.5	29	345	355	.47	1020	2.6	.48	3.1	14	.31	--
DEC 15...	.5	31	347	345	.47	904	2.7	1.0	3.7	16	.30	3.2
JAN 12...	.6	34	371	372	.50	785	2.7	1.2	3.9	17	.41	--
FEB 09...	.6	32	402	401	.55	726	3.1	.54	3.6	16	.41	--
MAR 08...	.6	29	373	369	.51	655	2.8	.65	3.5	15	.43	2.2
APR 12...	.5	18	240	244	.33	223	.81	.81	1.6	7.2	.21	--
MAY 10...	.7	25	317	313	.43	448	1.7	1.1	2.8	12	.43	--
JUN 07...	.7	28	411	406	.56	243	1.4	.67	2.1	9.2	.33	4.9
JUL 21...	.7	39	396	410	.54	294	1.2	.86	2.1	9.1	.36	--
AUG 10...	.7	31	388	388	.53	286	1.2	.92	2.1	9.4	.30	--
SEP 08...	.6	33	398	409	.54	391	1.9	.10	2.0	8.9	.30	3.8

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS-PENDED COBALT (CO) (UG/L)
DEC 15...	7	0	7	<10	<10	0	10	10	0	<50	<48
MAR 08...	9	1	8	<10	<8	2	0	0	0	<50	<50
JUN 07...	9	--	13	<10	--	3	10	--	10	<50	--
SEP 08...	11	1	10	<10	<10	0	20	20	0	<50	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)
DEC 15...	2	<10	<8	2	740	60	<100	<97	3	100	70
MAR 08...	0	<10	<9	1	220	60	<100	<87	13	60	10
JUN 07...	0	<10	--	3	580	50	<100	--	55	130	--
SEP 08...	0	<10	<9	1	280	30	<100	<99	1	70	30

13213000 BOISE RIVER NEAR PARMA, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC 15...	30	.3	.3	.0	1	0	1	10	0	20
MAR 08...	50	.0	--	.0	1	0	1	10	0	10
JUN 07...	60	.0	--	.1	1	1	0	8	--	0
SEP 08...	40	.1	.1	.0	0	0	0	10	10	0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
OCT 14...	1200	20	60	--	--	--	--
NOV 16...	1130	14	53	--	--	--	--
DEC 15...	1110	17	44	--	--	--	--
JAN 12...	1300	32	68	--	--	--	--
FEB 09...	1230	26	51	--	--	--	--
MAR 08...	0930	32	56	--	--	--	--
APR 12...	1030	23	21	--	--	--	--
MAY 10...	1000	102	144	13	24	40	60
JUN 07...	1000	23	14	--	--	--	--
JUL 21...	1045	72	53	--	--	--	--
AUG 10...	1230	33	24	--	--	--	--
SEP 08...	1700	19	19	--	--	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
OCT 14...	--	75	83	88	98	100
NOV 16...	--	57	67	73	90	100
DEC 15...	--	87	89	91	95	100
JAN 12...	--	97	99	100	--	--
FEB 09...	--	94	99	100	--	--
MAR 08...	--	90	97	99	100	--
APR 12...	--	94	98	100	--	--
MAY 10...	85	97	100	--	--	--
JUN 07...	--	98	100	--	--	--
JUL 21...	--	--	--	--	--	--
AUG 10...	--	96	99	100	--	--
SEP 08...	--	93	98	100	--	--

13213000 BOISE RIVER NEAR PARMA, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 14.76		NOV 16.76		DEC 15.76		JAN 12.77		FEB 9.77	
TIME	1200		1130		1110		1300		1230	
TOTAL CELLS/ML	1400		4000		710		5900		1400	
DIVERSITY: DIVISION	0.1		1.1		0.0		1.0		0.0	
.CLASS	0.1		1.1		0.0		1.0		0.0	
..ORDER	0.1		1.4		0.3		1.1		0.1	
...FAMILY	1.7		2.8		2.1		1.8		2.0	
....GENUS	1.7		3.1		2.3		1.9		2.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....CHODATELLA	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	*	0	74	2	--	-	--	-	--	-
....SCENEDESMUS	*	0	200	5	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	25	1	--	-	*	0	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	23	2	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	27	4	*	0	14	1
....MELOSIRA	--	-	99	2	11	2	150	3	--	-
....STEPHANODISCUS	--	-	120	3	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	25	1	--	-	110	2	14	1
....COCCONEIS	46	3	*	0	11	2	170	3	27	2
....RHOICOSPHENIA	--	-	25	1	*	0	43	1	41	3
...CYMBELLACEAE										
....AMPHORA	--	-	*	0	--	-	--	-	27	2
....CYMBELLA	46	3	49	1	--	-	150	3	95	7
....EPITHEMIA	--	-	--	-	*	0	--	-	--	-
...DIATOMACEAE										
....DIATOMA	46	3	220	6	70	10	130	2	95	7
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	140#	20	--	-	--	-
....SYNEDRA	92	7	270	7	11	2	110	2	27	2
...GOMPHONEMATACEAE										
....GOMPHONEMA	69	5	200	5	16	2	64	1	54	4
...NAVICULACEAE										
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	5	1	--	-	--	-
....NAVICULA	970#	69	1400#	34	340#	48	720	12	830#	60
....NEIDIUM	--	-	--	-	--	-	*	0	--	-
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....DENTICULA	--	-	--	-	--	-	*	0	--	-
....NITZSCHIA	120	8	520	13	70	10	130	2	150	11
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	*	0	--	-	--	-	--	-
....SURIRELLA	--	-	--	-	5	1	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	670#	17	--	-	--	-	--	-
....OSCILLATORIA	--	-	120	3	--	-	4000#	68	--	-
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	*	0	--	-	43	1	--	-
....PHACUS	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	25	1	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13213000 BOISE RIVER NEAR PARMA, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 10,77		JUL 21,77		AUG 10,77		SEP 8,77	
TIME	1000		1045		1230		1700	
TOTAL CELLS/ML	14000		2200		3200		1700	
DIVERSITY: DIVISION	0.0		0.4		1.1		1.7	
.CLASS	0.0		0.4		1.1		1.8	
..ORDER	0.2		1.2		1.6		2.2	
...FAMILY	2.5		2.6		2.8		2.8	
....GENUS	2.6		3.1		3.0		3.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	50	2	--	-	*	0
...OOCYSTACEAE								
....CHODATELLA	--	-	--	-	--	-	*	0
....KIRCHNERIELLA	--	-	--	-	--	-	*	0
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	170	10
....SCENEDESMUS	--	-	99	5	990#	30	360#	21
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	70	2	65	4
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	450	3	150	7	310	9	36	2
....MELOSIRA	110	1	400#	18	--	-	--	-
....STEPHANODISCUS	--	-	150	7	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	230	2	--	-	--	-	--	-
....COCCONEIS	450	3	99	5	70	2	14	1
....RHOICOSPHENIA	--	-	130	6	230	7	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	50	2	23	1	--	-
....CYMBELLA	230	2	--	-	--	-	14	1
....EPITHEMIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	680	5	170	8	70	2	14	1
...FRAGILARIACEAE								
....FRAGILARIA	3600#	25	--	-	--	-	--	-
....SYNEDRA	110	1	99	5	540#	17	65	4
...GOMPHONEMATACEAE								
....GOMPHONEMA	680	5	17	1	47	1	57	3
...NAVICULACEAE								
....CALONEIS	110	1	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	4600#	33	680#	31	590#	18	160	9
....NEIDIUM	--	-	--	-	70	2	--	-
....PINNULARIA	--	-	--	-	--	-	*	0
....STAURONEIS	--	-	--	-	--	-	*	0
...NITZSCHIACEAE								
....DENTICULA	--	-	--	-	--	-	--	-
....NITZSCHIA	2800#	20	120	5	94	3	57	3
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	--	-	--	-	--	-
...TABELLARIACEAE								
....TABELLARIA	110	1	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	50	3
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....GOMPHOSPHAERIA	--	-	--	-	--	-	570#	33
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	29	2
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	70	2	--	-
....TRACHELOMONAS	--	-	--	-	70	2	36	2

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13213000 BOISE RIVER NEAR PARMA, ID--Continued

DATE	LENGTH OF EXPOSURE (DAYS)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERIPHYTON CHROMOSPECTMETRIC (MG/M2)	CHLOR-B PERIPHYTON CHROMOSPECTMETRIC (MG/M2)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS)
DEC 15...	29	1.14	.899	6.83	1.88	--	--	35.3
JUN 07...	28	17.1	14.9	--	--	1.64	.286	1341

13213100 SNAKE RIVER AT NYSSA, OR

LOCATION.--Lat 43°52'36", long 116°59'02", in NW¼SW¼NW¼ sec.33, T.19 S., R.47 E., Malheur County, Hydrologic Unit 17050115, on left bank 300 ft (90 m) upstream from U.S. Highway 20-26 bridge at Nyssa, 2.3 mi (3.7 km) downstream from Boise River, and at mile 385.2 (619.8 km).

DRAINAGE AREA.--58,700 mi² (152,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage 2,170 ft or 661 m (from topographic map).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,900 ft³/s (1,190 m³/s) Apr. 16, 1975, and Apr. 13, 1976 (gage height, 10.72 ft or 3.267 m); minimum, 4,330 ft³/s (123 m³/s) July 1, 1977 (gage height, 4.00 ft or 1.219 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,900 ft³/s (564 m³/s) Dec. 5 (gage height, 7.21 ft or 2.198 m); minimum, 4,330 ft³/s (123 m³/s) July 1 (gage height, 4.00 ft or 1.219 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.0	4,330	6.0	13,200
4.5	6,300	6.5	15,900
5.0	8,450	7.0	18,700
5.5	10,800	7.5	21,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12900	13500	16000	13000	13400	11000	9090	6010	7060	4480	5930	7570
2	12800	13800	15600	13200	13600	11500	8630	6470	7100	4830	5770	7440
3	13100	14300	15600	13700	13600	11400	8940	6180	6800	4940	5890	7480
4	12500	14500	17500	13500	12900	12100	10100	6430	5570	5330	5930	7350
5	13700	13600	19100	13200	12900	12000	9450	6680	5330	5490	6010	7180
6	13800	13600	18600	13200	12800	12400	10100	7360	5510	6090	6090	6680
7	13900	13800	18000	12900	12400	12400	8860	7310	6470	6090	6010	6300
8	15200	13400	17100	12600	12600	12400	8230	7180	6470	5970	6140	6760
9	15200	13300	16800	12800	12500	12200	7920	7270	7530	5890	6180	6640
10	14500	14100	16800	12700	12500	12500	6550	7450	6380	5850	6260	6760
11	14500	14100	16600	12400	12300	12500	6630	7650	7230	5850	6340	7270
12	15200	13700	15500	12600	12000	12500	7660	7100	8540	5730	6300	7350
13	15500	12800	15600	12500	12300	12300	6550	7230	8490	5610	6300	7010
14	17000	13000	14800	12700	13100	11700	7400	7010	8670	5610	6090	7140
15	16300	13800	14400	12500	12400	11500	7230	6970	9040	5330	6140	7140
16	15600	13900	15400	12300	12900	12200	6550	6590	8950	5260	5970	7180
17	15300	14200	13800	12300	12300	11700	6930	6100	8630	5290	5810	7230
18	14900	14100	13100	12300	12200	11000	7570	5810	8450	5490	5850	7440
19	14900	13700	14000	12400	12300	10600	7700	5730	8050	5490	5610	7830
20	14900	13900	13600	12900	12300	10500	7700	5770	7600	5370	5650	7880
21	14200	14000	13900	13400	10700	9040	7140	6510	7300	5330	5690	7660
22	13900	13900	13700	12900	10600	8190	7360	6720	7000	5330	5770	8320
23	13400	14000	13300	12900	11100	10100	7310	6470	7000	5370	5650	8140
24	13400	14500	12900	13000	11000	11000	7400	6180	6650	5570	5810	8410
25	13400	14800	13000	13000	11200	10700	6930	6340	6400	5770	6300	8900
26	13200	13900	13300	13200	10700	10300	6720	7530	5800	6090	6510	8630
27	13200	12900	13900	13600	10600	9720	6470	9130	5450	6220	7310	8630
28	13200	15500	13200	13800	10900	9400	5810	8140	5200	6430	8010	8670
29	13200	16200	13700	13200	---	10200	5770	7570	4750	6510	7830	8990
30	13400	16100	13800	13400	---	10200	5970	7360	4520	6180	7660	8950
31	13800	---	13300	13500	---	9940	---	7100	---	5850	7570	---
TOTAL	440000	420900	465900	401600	340100	345190	226670	213350	207940	174640	194380	228930
MEAN	14190	14030	15030	12950	12150	11140	7556	6882	6931	5634	6270	7631
MAX	17000	16200	19100	13800	13600	12500	10100	9130	9040	6510	8010	8990
MIN	12500	12800	12900	12300	10600	8190	5770	5730	4520	4480	5610	6300
AC-FT	872700	834900	924100	796600	674600	684700	449600	423200	412400	346400	385600	454100

CAL YR 1976 TOTAL 6731020 MEAN 18390 MAX 41200 MIN 6800 AC-FT 13350000
WTR YR 1977 TOTAL 3659600 MEAN 10030 MAX 19100 MIN 4480 AC-FT 7259000

13213100 SNAKE RIVER AT NYSSA, OR--Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year (discontinued)

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS, DISSOLVED (MG/L AS CACO3)
OCT												
15...	1100	16400	467	8.6	10.5	14.0	9	10.2	105	77	120	180
NOV												
17...	1000	13400	534	8.5	7.0	9.0	7	11.5	106	240	198	200
DEC												
16...	1230	15400	486	8.3	-2.0	4.0	15	13.3	110	B18	B27	200
JAN												
13...	1100	12400	504	8.7	-2.5	.5	3	13.3	100	B160	--	210
FEB												
10...	1345	12200	490	8.5	3.0	3.5	3	13.9	127	B2	44	210
MAR												
08...	1215	11800	509	8.9	21.5	9.5	6	13.0	123	B12	53	200
APR												
13...	1045	5980	458	8.9	12.5	11.5	4	10.0	99	45	250	180
MAY												
11...	0900	7120	480	8.9	8.5	13.5	9	10.4	108	167	381	170
JUN												
08...	1000	6320	506	8.5	25.0	23.0	10	8.6	107	63	134	180
JUL												
22...	1200	5520	507	8.5	29.0	26.0	15	10.4	137	B50	2000	170
AUG												
09...	1300	6220	553	8.7	21.0	23.0	15	11.3	140	B8	1079	200
SEP												
08...	1330	6930	549	8.6	20.5	20.5	15	11.5	137	B8	755	190

DATE	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY, TOTAL (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT												
15...	14	40	19	38	31	1.2	5.0	180	11	166	62	24
NOV												
17...	0	47	20	40	30	1.2	5.0	240	7	209	57	25
DEC												
16...	20	49	19	34	26	1.0	4.6	220	0	180	55	23
JAN												
13...	34	50	20	35	26	1.1	4.6	180	17	176	58	26
FEB												
10...	26	51	19	33	25	1.0	4.8	190	17	184	58	26
MAR												
08...	4	49	19	34	26	1.0	4.7	190	24	196	54	26
APR												
13...	0	41	18	37	31	1.2	5.0	200	14	190	58	24
MAY												
11...	1	38	18	41	34	1.4	5.3	170	17	170	66	24
JUN												
08...	12	39	20	42	33	1.4	5.1	180	12	168	66	26
JUL												
22...	0	37	18	48	38	1.6	5.7	200	12	180	73	27
AUG												
09...	13	44	22	48	33	1.5	5.7	190	19	187	74	26
SEP												
08...	0	42	20	49	35	1.6	5.5	190	19	190	75	28

B Results based on count outside ideal colony count range.

13213100 SNAKE RIVER AT NYSSA, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	.6	18	307	306	.42	13600	.85	.98	1.8	8.1	.07	--
NOV 17...	.7	27	331	347	.45	12000	.78	.50	1.3	5.7	.10	--
DEC 16...	.7	25	323	319	.44	13400	1.2	.54	1.7	7.7	.06	1.7
JAN 13...	.7	28	325	328	.44	10900	1.2	.39	1.6	7.1	.05	--
FEB 10...	.7	27	327	330	.44	10800	.82	.47	1.3	5.7	.05	--
MAR 08...	.7	26	319	331	.43	10200	.99	.18	1.2	5.2	.07	1.8
APR 13...	.7	22	306	318	.42	4940	.47	.88	1.4	6.0	.00	--
MAY 11...	.8	22	325	316	.44	6250	.57	.63	1.2	5.3	.08	--
JUN 08...	.7	20	315	320	.43	5380	.49	.54	1.0	4.6	.06	3.8
JUL 22...	.8	28	339	348	.46	5050	.31	.82	1.1	5.0	.13	--
AUG 09...	.7	29	355	362	.48	5960	.59	.68	1.3	5.6	.11	--
SEP 08...	.7	28	344	361	.47	6440	.60	.66	1.3	5.6	.09	2.9

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS-PENDED COBALT (CO) (UG/L)
DEC 16...	2	0	2	<10	<9	1	10	10	0	<50	<48
MAR 08...	5	1	4	<10	<8	2	0	0	10	<50	<50
JUN 08...	7	--	7	<10	--	1	10	--	0	<50	--
SEP 08...	6	1	5	<10	<10	0	20	20	0	<50	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)
DEC 16...	2	40	38	2	200	40	<100	<97	3	20	10
MAR 08...	0	<10	<7	3	320	240	<100	<93	7	40	40
JUN 08...	0	<10	--	4	40	30	<100	--	6	4	--
SEP 08...	0	<10	<9	1	340	20	<100	<99	1	40	40

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC 16...	10	.3	.2	.1	1	0	1	10	0	20
MAR 08...	0	.0	--	.0	1	0	1	10	0	10
JUN 08...	4	.1	--	.1	1	1	0	0	--	0
SEP 08...	0	.1	.1	.0	0	0	0	10	10	0

SNAKE RIVER MAIN STEM

13213100 SNAKE RIVER AT NYSSA, OR--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ATRAZINE (UG/L)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	P,P' DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)
NOV 17...	1000	13400	ND	ND	ND	ND	ND	ND	ND	5.1	ND
FEB 10...	1345	12200	ND	--	ND	--	ND	--	ND	--	ND
MAY 11...	0900	7120	ND	ND	ND	--	ND	ND	ND	3.5	ND
AUG 10...	1530	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	P,P' DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	O,P' DDT IN BOTTOM MATERIAL (UG/KG)	P,P' DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	DIAZINON IN BOTTOM MATERIAL (UG/KG)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)
NOV 17...	2.4	ND	.6	3.1	ND	ND	ND	.6	ND	ND
FEB 10...	--	ND	--	--	ND	--	ND	--	ND	--
MAY 11...	8.6	ND	--	5.5	ND	ND	ND	.8	ND	ND
AUG 10...	--	ND	--	--	ND	--	ND	--	ND	--

DATE	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	MALATHION IN BOTTOM MATERIAL (UG/KG)
NOV 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 10...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 10...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL METHOXYCHLOR (UG/L)	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL PARATHION (UG/L)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL TRITHION (UG/L)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL PARATHION (UG/L)	PARATHION IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)
NOV 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 10...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
AUG 10...	ND	--	ND	--	ND	--	ND	--	ND	--

ND Material specifically analyzed for but not detected.

13213100 SNAKE RIVER AT NYSSA, OR--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TRI-THION IN BOTTOM MA-TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MA-TERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MA-TERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MA-TERIAL (UG/KG)
NOV										
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
10...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY										
11...	ND	ND	ND	ND	ND	--	ND	--	ND	--
AUG										
10...	ND	--	ND	--	ND	--	ND	--	ND	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
OCT							
15...	1100	22	974	--	--	--	--
NOV							
17...	1000	17	615	--	--	--	--
DEC							
16...	1230	12	499	--	--	--	--
JAN							
13...	1100	6	201	--	--	--	--
FEB							
10...	1345	11	362	--	--	--	--
MAR							
08...	1215	20	637	--	--	--	--
APR							
13...	1045	13	210	--	--	--	--
MAY							
11...	0900	51	980	30	44	53	65
JUN							
08...	1000	30	512	--	--	--	--
JUL							
22...	1200	81	1210	--	--	--	--
AUG							
09...	1300	62	1040	--	--	--	--
SEP							
08...	1330	54	1010	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT						
15...	--	64	82	98	100	--
NOV						
17...	--	68	81	96	99	100
DEC						
16...	--	38	69	79	97	100
JAN						
13...	--	66	74	90	95	100
FEB						
10...	--	70	90	98	100	--
MAR						
08...	--	64	92	98	100	--
APR						
13...	--	92	100	--	--	--
MAY						
11...	82	93	99	100	--	--
JUN						
08...	--	95	100	--	--	--
JUL						
22...	--	97	99	100	--	--
AUG						
09...	--	95	99	100	--	--
SEP						
08...	--	85	92	100	--	--

13213100 SNAKE RIVER AT NYSSA, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 15,76	NOV 17,76	JAN 13,77	FEB 10,77	MAY 11,77
TIME	1100	1000	1100	1345	0900
TOTAL CELLS/ML	14000	9200	2400	5600	23000
DIVERSITY: DIVISION	1.4	0.3	0.3	0.3	0.5
.CLASS	1.4	0.3	0.3	0.3	0.5
..ORDER	1.8	0.6	1.2	0.9	1.4
...FAMILY	2.1	0.8	2.1	1.1	2.3
....GENUS	2.6	1.4	2.3	1.1	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	*	0	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	*	0	--	-	*	0	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	220	2	*	0	21	1	*	0	1600	7
....CHODATELLA	--	-	--	-	41	2	--	-	640	3
....DICTYOSPHAERIUM	440	3	*	0	--	-	--	-	--	-
....KIRCHNERIELLA	*	0	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	*	0	*	0	--	-	--	-	--	-
....CRUCIGENIA	440	3	--	-	--	-	--	-	--	-
....SCENEDESMUS	110	1	*	0	83	3	--	-	640	3
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	220	2	--	-	--	-	240	4	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	4200#	30	--	-	1400#	59	4500#	81	10000#	45
....MELOSIRA	880	6	1500#	17	--	-	--	-	320	1
....STEPHANODISCUS	770	6	6600#	72	21	1	--	-	480	2
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	*	0	160	1
....RHOICOSPHENIA	220	2	76	1	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	*	0	--	-	62	3	96	2	480	2
...DIATOMACEAE										
....DIATOMA	--	-	76	1	190	8	*	0	480	2
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	210	9	--	-	4700#	20
....FRAGILARIA	*	0	76	1	--	-	--	-	--	-
....SYNEDRA	*	0	*	0	41	2	48	1	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	110	1	--	-	62	3	*	0	--	-
...NAVICULACEAE										
....CALONEIS	*	0	--	-	--	-	--	-	--	-
....NAVICULA	880	6	76	1	170	7	530	9	2200	10
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	*	0	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....DENTICULA	--	-	--	-	--	-	*	0	--	-
....NITZSCHIA	330	2	76	1	100	4	96	2	640	3
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	150	2	--	-	--	-	160	1
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	--	-	48	1	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

13213100 SNAKE RIVER AT NYSSA, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 15,76		NOV 17,76		JAN 13,77		FEB 10,77		MAY 11,77	
TIME	1100		1000		1100		1345		0900	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	*	0	--	-	--	-	--	-	--	-
....APHANIZOMENON	*	0	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	4900#	36	--	-	--	-	--	-	--	-
....OSCILLATORIA	*	0	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	*	0	--	-	--	-	--	-	--	-
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	76	1	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	230	2	--	-	--	-	--	-
....TRACHELOMONAS	--	-	150	2	--	-	*	0	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13213100 SNAKE RIVER AT NYSSA, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	JUN 8,77	AUG 9,77	SEP 8,77
TIME	1000	1300	1330
TOTAL CELLS/ML	17000	65000	34000
DIVERSITY: DIVISION	1.4	1.4	1.5
.CLASS	1.5	1.4	1.5
..ORDER	2.1	1.8	2.3
...FAMILY	3.0	2.3	2.6
....GENUS	3.5	2.6	3.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	1100	2	*	0
...COELASTRACEAE						
....COELASTRUM	--	-	2100	3	870	3
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	--	-	--	-
...MICRACTINIACEAE						
....GOLENKINIA	1800	11	--	-	--	-
....MICRACTINIUM	1100	7	--	-	2800	8
...OOCYSTACEAE						
....ANKISTRODESMUS	860	5	1200	2	220	1
....CHODATELLA	670	4	*	0	--	-
....DICTYOSPHAERIUM	--	-	530	1	--	-
....KIRCHNERIELLA	--	-	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	760	4	--	-	--	-
....CRUCIGENIA	--	-	2700	4	--	-
....SCENEDESMUS	1100	7	2900	5	1500	5
....TETRASTRUM	190	1	--	-	1300	4
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	190	1	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	2800#	16	3300	5	2200	6
....MELOSIRA	--	-	11000#	18	2000	6
....STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	190	1	--	-	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	1500	9	--	-	--	-
....FRAGILARIA	--	-	530	1	11000#	32
....SYNEDRA	--	-	--	-	*	0
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....CALONEIS	--	-	--	-	--	-
....NAVICULA	96	1	400	1	--	-
....NEIDIUM	--	-	530	1	--	-
....PINNULARIA	--	-	--	-	--	-
...NITZSCHIACEAE						
....DENTICULA	--	-	--	-	--	-
....NITZSCHIA	3700#	22	*	0	--	-
...SURIRELLACEAE						
....CYMATOPLEURA	--	-	--	-	*	0
....SURIRELLA	--	-	--	-	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...CHROMULINACEAE						
....CHRYSOCOCCUS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
      * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13213100 SNAKE RIVER AT NYSSA, OR--Continued

PHYTOPLANKTON ANALYSES. OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	JUN 8.77 1000		AUG 9.77 1300		SEP 8.77 1330	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROCCOCCALES						
...CHROCCOCCAEAE						
....AGMENELLUM	--	-	4200	7	--	-
....ANACYSTIS	960	6	--	-	5500#	16
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	760	4	--	-	4400	13
....APHANIZOMENON	--	-	32000#	49	1900	6
...OSCILLATORIACEAE						
....LYNGBYA	--	-	--	-	--	-
....OSCILLATORIA	--	-	2000	3	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.CRYPTOPHYCEAE						
..CRYPTOMONIDALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	--	-
...CRYPTOMONODACEAE						
....CRYPTOMONAS	96	1	--	-	--	-
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	96	1	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)
DEC								
16...	29	11.4	5.85	3.96	.396	--	--	1399
JUN								
08...	28	6.06	5.12	--	--	.030	.007	31330

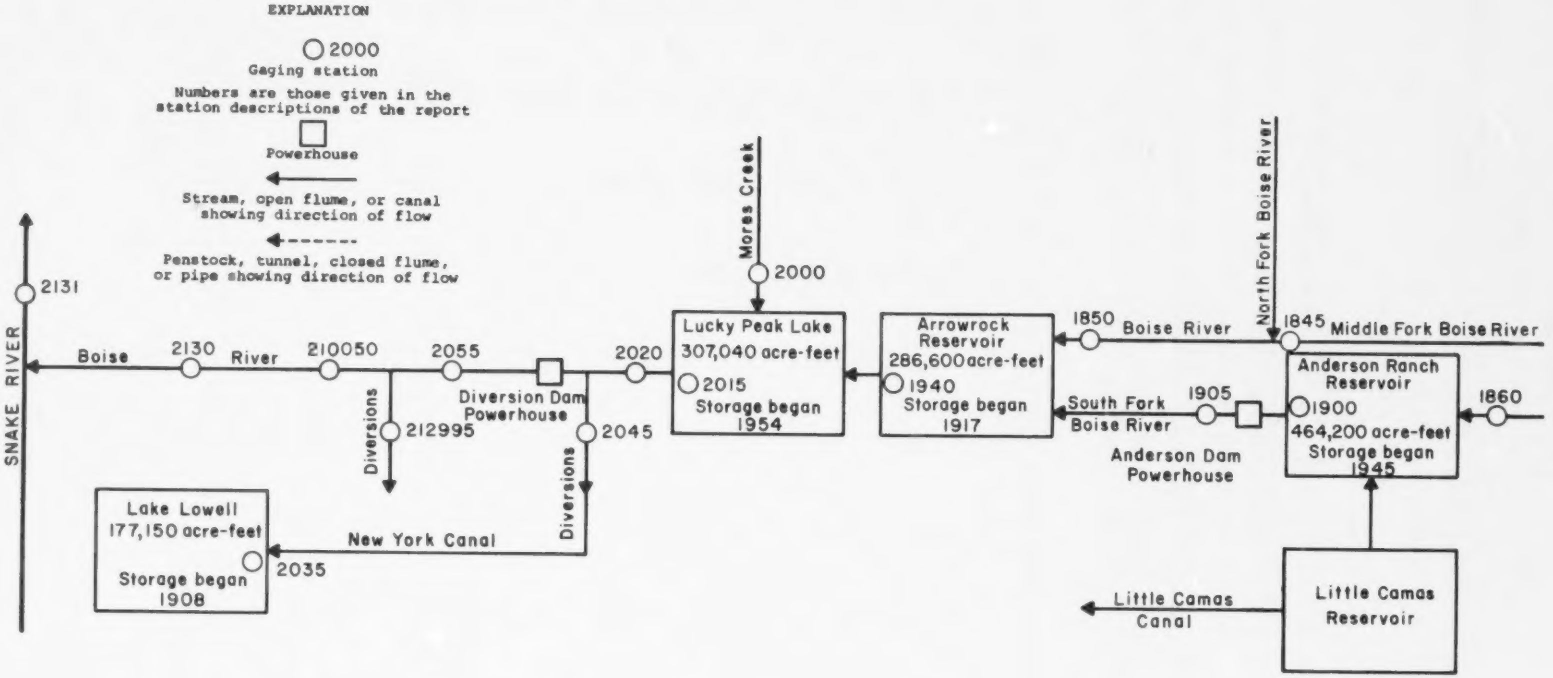
EXPLANATION
2000
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
SNAKE RIVER
2131
Boise
2130
River
210050
Diversions
212995
2055
Diversion Dam Powerhouse
Diversions
2045
2020
Lake Lowell
177,150 acre-feet
Storage began
1908
2035
New York Canal
Mores Creek
2000
Lucky Peak Lake
307,040 acre-feet
2015
Storage began
1954
Arrowrock Reservoir
286,600 acre-feet
1940
Storage began
1917
1850
Boise River
North Fork Boise River
1845
Middle Fork Boise River
South Fork Boise River
1905
Anderson Dam Powerhouse
Anderson Ranch Reservoir
1900
464,200 acre-feet
Storage began
1945
1860
Little Camas Reservoir
Little Camas Canal

FIGURE 17.--Gaging stations in Boise River basin.

13235000 SOUTH FORK PAYETTE RIVER AT LOWMAN, ID

LOCATION.--Lat 44°05'05", long 115°37'10", in SW¼ sec.27, T.9 N., R.7 E., Boise County, Hydrologic Unit 17040120, Boise National Forest, on right bank 1,200 ft (366 m) upstream from Rock Creek, 0.5 mi (0.8 km) northwest of Lowman, 4,100 ft (1,249.68 m) downstream from Clear Creek, and at mile 28.2 (45.4 km).

DRAINAGE AREA.--456 mi² (1,181 km²). Mean altitude, 6,780 ft (2,066.5 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,790 ft or 1,155 m (from river-profile map). Prior to Dec. 18, 1941, nonrecording gage at site 900 ft (274 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which is fair. No regulation. Several small diversions for irrigation, the return flow from which enters river above station.

AVERAGE DISCHARGE.--36 years, 883 ft³/s (25.01 m³/s), 26.30 in/yr (668 mm/yr), 639,700 acre-ft/yr (789 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,980 ft³/s (254 m³/s) June 16, 1974 (gage height, 8.36 ft or 2.548 m, from floodmark); minimum, 135 ft³/s (3.82 m³/s) Sept. 10, 1966 (gage height, 2.22 ft or 0.677 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft³/s (58.3 m³/s) June 7, partially caused by release from temporary damming of Pence Creek (gage height, 4.72 ft or 1.439 m), no peak above base of 3,000 ft³/s (85.0 m³/s); minimum, 143 ft³/s (4.05 m³/s) Nov. 27, 28 (gage height, 2.71 ft or 0.826 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369	343	280	250	290	234	228	633	620	419	250	268
2	369	343	300	260	270	223	223	620	857	425	239	250
3	368	343	310	285	260	223	218	580	822	437	234	250
4	362	337	310	300	260	219	250	534	831	462	234	239
5	369	337	300	260	260	216	319	480	901	456	234	234
6	369	331	280	230	260	223	369	462	996	413	234	220
7	362	337	300	210	250	228	425	450	1190	395	234	223
8	362	331	335	230	250	239	508	437	1350	375	250	223
9	356	331	319	240	250	262	534	425	1040	356	250	218
10	349	331	290	260	250	234	437	480	1040	349	228	218
11	349	331	274	210	250	213	419	462	1150	337	223	218
12	343	325	265	280	250	245	425	450	1050	331	223	213
13	343	313	285	290	250	234	419	450	842	319	218	213
14	343	313	296	320	239	223	407	475	848	319	213	213
15	343	337	290	340	234	198	382	482	920	313	223	218
16	337	337	245	350	234	223	401	475	822	296	213	234
17	337	331	270	330	239	234	425	469	750	285	208	279
18	331	331	240	300	234	218	407	450	705	279	208	256
19	337	325	220	280	234	223	388	462	676	274	208	239
20	337	325	200	250	228	208	369	450	668	274	203	268
21	331	319	240	250	245	220	369	437	640	279	203	296
22	331	319	280	250	245	228	345	443	549	302	203	274
23	331	319	330	220	239	245	431	500	566	290	203	256
24	331	313	320	200	234	256	488	573	541	307	208	325
25	356	319	330	220	203	234	554	593	522	349	285	319
26	349	268	350	220	245	228	620	613	445	307	325	307
27	343	143	310	220	218	239	620	647	475	265	302	296
28	343	170	260	230	234	234	599	613	462	274	268	285
29	337	234	220	230	---	223	633	579	450	256	262	331
30	343	270	230	230	---	228	640	554	431	250	268	431
31	337	---	235	270	---	223	---	547	---	250	302	---
TOTAL	10807	9361	8762	8075	6855	7087	12908	15893	23309	10273	7361	7822
MEAN	349	312	283	260	245	229	430	513	777	331	237	261
MAX	368	343	350	350	290	262	640	647	1350	462	325	431
MIN	331	170	200	200	203	198	218	425	431	250	203	213
CFSM	.77	.68	.62	.57	.54	.50	.94	1.13	1.70	.73	.52	.57
IN.	.88	.76	.71	.66	.56	.58	1.05	1.30	1.90	.84	.60	.64
AC-FT	21440	18570	17380	16020	13600	14060	25600	31520	46230	20380	14600	15510

CAL YR 1976 TOTAL 329063 MEAN 899 MAX 3900 MIN 170 CFSM 1.97 IN 26.84 AC-FT 652700
WTR YR 1977 TOTAL 128513 MEAN 352 MAX 1350 MIN 170 CFSM .77 IN 10.48 AC-FT 254900

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13235000 SOUTH FORK PAYETTE RIVER AT LOWMAN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
OCT 05...	1310	379	88	8.4	15.0	8.5	36	0
NOV 16...	1150	341	90	7.9	6.5	4.5	31	0
JAN 11...	1200	272	75	--	-3.0	.0	--	--
FEB 16...	1525	243	85	--	15.0	3.5	--	--
APR 04...	1230	240	93	--	19.0	9.0	--	--
MAY 02...	1505	662	64	8.8	18.5	11.0	26	0
JUN 15...	1250	957	55	--	20.5	12.5	--	--
JUL 26...	1454	312	--	--	38.0	22.0	--	--
SEP 08...	1200	230	92	8.0	19.0	14.5	39	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 05...	13	.9	4.0	19	.3	.5	49	40	2.5
NOV 16...	11	.8	4.2	23	.3	.5	51	42	1.6
JAN 11...	--	--	--	--	--	--	--	--	--
FEB 16...	--	--	--	--	--	--	--	--	--
APR 04...	--	--	--	--	--	--	--	--	--
MAY 02...	9.0	.8	2.8	19	.2	.5	31	27	3.7
JUN 15...	--	--	--	--	--	--	--	--	--
JUL 26...	--	--	--	--	--	--	--	--	--
SEP 08...	14	1.0	5.0	21	.3	.6	51	42	8.2

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 05...	.6	.8	11	58	.08	59.4	.04	.01
NOV 16...	.6	.3	11	55	.07	50.6	.01	.02
JAN 11...	--	--	--	--	--	--	--	--
FEB 16...	--	--	--	--	--	--	--	--
APR 04...	--	--	--	--	--	--	--	--
MAY 02...	.6	.9	8.2	43	.06	76.9	.08	.00
JUN 15...	--	--	--	--	--	--	--	--
JUL 26...	--	--	--	--	--	--	--	--
SEP 08...	.7	1.1	12	68	.09	42.2	.02	.00

13236000 DEADWOOD RESERVOIR NEAR LOWMAN, ID

LOCATION.--Lat 44°17'38", long 115°38'41", in SW¼SE¼ sec.8, T.11 N., R.7 E., Valley County, Hydrologic Unit 17050120, Boise National Forest, at dam on Deadwood River, 15 mi (24 km) north of Lowman, and at mile 18.0 (29.0 km).

DRAINAGE AREA.--112 mi² (290 km²).

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Datum of Geological Survey levels (1952, preliminary) is 22.8 ft (6.95 m) higher. Prior to July 1, 1964, nonrecording gage.

REMARKS.--Reservoir is formed by concrete-arch dam completed in 1930; storage began Nov. 2, 1930. Reported capacity, 160,400 acre-ft (198 hm³) between elevations 5,230.0 ft or 1,594.104 m (minimum operating level for fish protection, 27 ft or 8.2 m above sill of emergency gate in front of needle valve) and 5,334.0 ft or 1,625.803 m (crest of spillway). Storage below elevation 5,230 ft (1,594.1 m), about 1,500 acre-ft (1.85 hm³). Water is used to augment flow of Payette River at Black Canyon powerplant near Emmett and, since 1956, as supplemental irrigation supply for Emmett Irrigation District and other users. Small diversion from a tributary of Johnson Creek in Salmon River basin to Deadwood River basin for supplemental storage in Deadwood Reservoir.

COOPERATION.--Observer readings furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 5,337.43 ft (1,626.849 m) June 25, 1974; minimum observed, about 5,205 ft (1,586.5 m) Sept. 18 to Oct. 11, 1951, Aug. 30 to Sept. 30, 1973, Oct. 1-4, 1974, when reservoir was drained for repairs.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 5,312.17 ft (1,619.149 m) May 17 minimum observed, 5,273.48 ft (1,607.357 m) Sept. 15.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298.12	300.16	301.73	303.26	304.73	306.00	307.43	310.44	308.71	302.39	292.30	278.34
2	298.17	300.22	301.79	303.34	304.76	306.03	307.47	310.58	308.42	302.02	291.90	277.98
3	298.24	300.29	301.83	303.43	304.80	306.08	307.52	310.70	308.16	301.59	291.46	277.62
4	298.31	300.34	301.91	303.46	304.83	306.11	307.56	310.80	307.91	301.13	291.03	277.25
5	298.36	300.44	301.94	303.49	304.88	306.15	307.62	310.92	307.68	300.72	290.52	276.86
6	298.45	300.48	302.01	303.54	304.92	306.22	307.68	311.02	307.41	300.36	289.95	276.48
7	298.53	300.54	302.06	303.60	304.97	306.27	307.77	311.13	307.36	299.92	289.45	276.08
8	298.61	300.61	302.14	303.62	305.02	306.32	307.90	311.24	307.17	299.58	289.98	275.66
9	298.69	300.66	302.16	303.67	305.06	306.41	308.00	311.36	306.97	299.05	288.51	275.25
10	298.77	300.73	302.22	303.71	305.10	306.43	308.09	311.47	307.02	298.56	288.00	274.84
11	298.83	300.78	302.26	303.78	305.13	306.46	308.19	311.61	307.07	298.17	287.41	274.41
12	298.90	300.85	302.29	303.85	305.18	306.55	308.30	311.73	307.07	297.75	286.87	274.00
13	298.97	300.88	302.34	303.89	305.22	306.58	308.38	311.85	307.01	297.30	286.44	273.71
14	299.04	300.92	302.38	303.94	305.26	306.61	308.47	311.93	306.96	296.81	285.99	273.57
15	299.10	301.00	302.43	303.99	305.30	306.65	308.57	312.03	306.91	296.32	285.54	273.45
16	299.18	301.06	302.49	304.03	305.35	306.71	308.65	312.11	306.72	295.84	284.98	273.51
17	299.22	301.14	302.53	304.09	305.40	306.74	308.75	312.17	306.54	295.42	284.58	273.60
18	299.28	301.19	302.58	304.13	305.43	306.80	308.80	312.15	306.32	295.01	284.14	273.67
19	299.34	301.24	302.61	304.15	305.47	306.85	308.93	311.97	306.14	294.48	283.72	273.75
20	299.39	301.29	302.66	304.22	305.54	306.88	309.02	311.72	305.95	293.99	283.29	273.84
21	299.45	301.35	302.71	304.27	305.61	306.93	309.12	311.43	305.77	293.50	282.84	273.92
22	299.52	301.42	302.76	304.30	305.67	306.98	309.23	311.16	305.55	293.49	282.40	273.98
23	299.57	301.46	302.82	304.33	305.70	307.04	309.35	310.97	305.27	293.47	281.94	274.05
24	299.66	301.52	302.85	304.36	305.74	307.07	309.49	310.76	304.95	293.32	281.52	274.20
25	299.71	301.56	302.90	304.42	305.81	307.10	309.68	310.53	304.67	293.11	281.13	274.33
26	299.76	301.54	302.99	304.47	305.83	307.17	309.79	310.27	304.35	293.11	280.72	274.43
27	299.83	301.56	303.01	304.50	305.89	307.22	309.92	310.01	304.05	293.04	280.29	274.54
28	299.89	301.59	303.05	304.55	305.96	307.26	310.09	309.76	303.61	292.56	279.86	274.63
29	299.97	301.65	303.10	304.59	---	307.30	310.21	309.48	303.20	292.35	279.44	274.80
30	300.03	301.69	303.15	304.63	---	307.35	310.33	309.22	302.79	292.34	279.00	274.94
31	300.10	---	303.20	304.70	---	307.40	---	308.98	---	292.33	278.75	---
TOTAL	9272.99	9030.16	9376.90	9424.36	8548.56	9507.67	9260.31	9641.50	9187.71	9189.03	8843.95	8247.69
MEAN	299.13	301.01	302.48	304.01	305.31	306.70	308.68	311.02	306.26	296.42	285.29	274.92
MAX	300.10	301.69	303.20	304.70	305.96	307.40	310.33	312.17	308.71	302.39	292.30	278.34
MIN	298.12	300.16	301.73	303.26	304.73	306.00	307.43	308.98	302.79	292.33	278.75	273.45

NOTE.--Add 5,000 ft to obtain elevation above mean sea level.

13236500 DEADWOOD RIVER BELOW DEADWOOD RESERVOIR, NEAR LOWMAN, ID

LOCATION.--Lat 44°17'30", long 115°38'33", in SE¼NE¼ sec.17, T.11 N., R.7 E., Valley County, Hydrologic Unit 17050120, Boise National Forest, on right bank 300 ft (91 m) upstream from Wilson Creek, 0.2 mi (0.3 km) downstream from Deadwood Dam, 15 mi (24 km) north of Lowman, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--112 mi² (290 km²). Mean altitude, 6,630 ft (2,020 m).

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to October 1934.

REVISED RECORDS.--WSP 1123: 1943. WSP 1517: 1956. WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,180.52 ft (1,579.022 m) above mean sea level (levels by Bureau of Reclamation). Datum of 1929, supplementary adjustment of 1947, is 29.19 ft (8.897 m) higher. Prior to June 22, 1935, at site 600 ft (183 m) upstream at datum 5.85 ft (1.783 m) higher and Oct. 1, 1935, to Aug. 3, 1955, at present site at datum 1.00 ft (0.305 m) higher. June 22 to Sept. 30, 1935, nonrecording gage at site 20 ft (6 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those below 5.0 ft³/s (0.14 m³/s), which are fair. Flow regulated by Deadwood Reservoir (see sta 13236000).

AVERAGE DISCHARGE.--51 years, 234 ft³/s (6.63 m³/s), 169,500 acre-ft/yr (209 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft³/s (73.1 m³/s) July 14, 1953, maximum gage height, 8.93 ft (2.722 m) June 7, 1956; no flow or small amount of leakage from reservoir for long periods in 1934-37, when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 487 ft³/s (13.8 m³/s) May 19, 20 (gage height, 4.52 ft or 1.378 m); minimum daily, 2.5 ft³/s (0.071 m³/s) Oct. 22; minimum gage height, 1.01 ft or 0.308 m.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19 to July 22)

0.8	0.87	2.0	57
.9	1.3	2.5	110
1.0	2.1	3.0	171
1.2	5.8	4.0	327
1.4	14	5.0	573
1.6	26		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.8	3.1	3.1	3.1	3.1	3.1	9.4	476	438	388	306
2	3.1	2.8	3.1	3.1	3.1	3.1	3.1	12	474	438	388	279
3	3.2	2.8	3.1	3.1	3.1	3.1	3.1	15	474	436	388	279
4	3.3	2.8	3.1	3.1	3.1	3.1	3.3	16	474	433	385	277
5	3.3	2.8	3.1	3.1	3.1	3.1	3.3	17	474	433	381	277
6	3.1	2.8	3.1	3.1	3.1	3.1	3.3	18	474	436	374	277
7	2.8	2.8	3.1	3.1	3.1	3.1	3.3	18	474	431	374	277
8	2.8	2.8	3.1	3.1	3.1	3.1	3.3	18	476	431	381	275
9	2.8	2.8	3.1	3.1	3.1	3.1	3.3	18	358	428	392	275
10	2.8	2.8	3.1	3.1	3.1	3.1	3.4	21	219	428	392	273
11	2.8	2.8	3.1	3.1	3.1	3.1	3.4	21	222	426	369	273
12	2.8	2.8	3.1	3.1	3.1	3.1	3.4	21	224	423	342	273
13	2.8	2.9	3.1	3.1	3.1	3.1	3.4	21	227	423	340	194
14	2.8	2.9	3.1	3.1	3.1	3.1	3.4	5.8	227	426	340	120
15	2.8	2.9	3.1	3.1	3.1	3.1	3.4	3.8	245	421	342	74
16	2.8	2.9	3.1	3.1	3.1	3.1	3.4	3.6	342	421	340	23
17	2.8	2.9	3.1	3.1	3.1	3.1	3.4	38	346	419	342	3.1
18	2.8	2.9	3.1	3.1	3.1	3.1	3.4	157	346	419	342	3.1
19	2.8	2.9	3.1	3.1	3.1	3.1	3.4	350	346	416	340	3.1
20	2.7	2.9	3.3	3.1	3.1	3.1	3.4	484	348	416	340	3.1
21	2.6	2.9	3.4	3.1	3.1	3.1	3.4	481	348	423	338	3.1
22	2.5	2.9	3.4	3.1	3.1	3.1	3.8	479	348	443	338	3.1
23	2.8	2.9	3.4	3.1	3.1	3.1	3.8	479	374	443	338	3.1
24	2.7	2.9	3.4	3.1	3.1	3.1	3.8	479	392	443	336	3.3
25	2.8	2.9	3.4	3.1	3.1	3.1	3.8	479	390	443	334	3.1
26	2.7	2.9	3.3	3.1	3.1	3.1	3.8	479	390	421	334	2.9
27	2.7	2.9	3.1	3.1	3.1	3.1	4.0	479	390	379	332	2.9
28	2.8	2.9	3.1	3.1	3.1	3.1	4.2	479	390	381	332	3.1
29	2.8	3.1	3.1	3.1	---	3.1	4.7	479	388	381	330	3.1
30	2.8	3.1	3.1	3.1	---	3.1	6.4	476	419	385	330	3.1
31	2.8	---	3.1	3.1	---	3.1	---	476	---	383	332	---
TOTAL	88.2	86.2	98.0	96.1	86.8	96.1	108.2	6532.6	11075	13067	10954	3795.2
MEAN	2.85	2.87	3.16	3.10	3.10	3.10	3.61	211	369	422	353	127
MAX	3.3	3.1	3.4	3.1	3.1	3.1	6.4	484	476	443	392	306
MIN	2.5	2.8	3.1	3.1	3.1	3.1	3.1	3.6	219	379	330	2.9
AC-FT	175	171	194	191	172	191	215	12960	21970	25920	21730	7530

CAL YR 1976 TOTAL 94446.2 MEAN 258 MAX 882 MIN 1.1 AC-FT 187300
WTR YR 1977 TOTAL 46083.4 MEAN 126 MAX 484 MIN 2.5 AC-FT 91410

13238500 PAYETTE LAKE AT MCCALL, ID

LOCATION.--Lat 44°54'50", long 116°07'10", in NW¼ sec.8, T.18 N., R.3 E., Valley County, Hydrologic Unit 17050123, at outlet of lake on North Fork Payette River at McCall and at mile 75.4 (121.3 km).

DRAINAGE AREA.--144 mi² (373 km²).

PERIOD OF RECORD.--August 1921 to current year (fragmentary prior to Nov. 23, 1943). Prior to October 1942, published as "at Lardo".

REVISED RECORDS.--WSP 753: 1931. WSP 1013: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,982.73 ft (1,518.74 m) above mean sea level, unadjusted. Prior to Aug. 26, 1931, nonrecording gage at site 25 ft (8 m) downstream at datum 2.0 ft (0.61 m) higher. Aug. 26, 1931, to Nov. 22, 1943, nonrecording gage at site 75 ft (23 m) downstream at present datum.

REMARKS.--Flow from Payette Lake is regulated within natural range by taintor gates and removable stoplogs of a buttress and slab-type dam completed in November 1943. During period 1923-43 lake was regulated by structure consisting of a series of concrete-filled cribs supporting removable flashboards. Some regulation is reported to have been affected by timber flashboards for several years prior to 1923. Lake area is approximately 5,000 acres (2,020 hm²). No capacity table has been developed. Water is used for irrigation in vicinity of Emmett. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 8.75 ft (2.667 m) July 13, 1935; minimum observed, 0.95 ft (0.289 m) Oct. 3, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.63 ft (2.326 m) June 2, 3, 4; minimum, 1.36 ft (0.415 m) Feb. 20.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.61	2.13	1.52	1.41	1.41	1.54	2.07	5.48	7.58	6.97	5.03	2.46
2	3.60	2.11	1.54	1.44	1.41	1.55	2.08	5.84	7.62	6.95	4.91	2.44
3	3.57	2.07	1.52	1.44	1.41	1.57	2.08	6.12	7.60	7.01	4.79	2.42
4	3.54	2.03	1.52	1.45	1.40	1.58	2.10	6.28	7.61	7.02	4.67	2.41
5	3.51	1.98	1.50	1.45	1.40	1.60	2.10	6.39	7.58	7.04	4.58	2.39
6	3.49	1.97	1.49	1.44	1.40	1.59	2.11	6.50	7.54	7.06	4.45	2.38
7	3.45	1.95	1.49	1.44	1.39	1.61	2.14	6.60	7.49	7.04	4.30	2.36
8	3.42	1.91	1.51	1.42	1.39	1.67	2.17	6.68	7.55	7.05	4.19	2.34
9	3.39	1.89	1.50	1.41	1.39	1.72	2.21	6.77	7.52	7.04	4.07	2.31
10	3.36	1.86	1.48	1.42	1.39	1.73	2.24	6.94	7.47	7.04	3.93	2.29
11	3.33	1.82	1.49	1.42	1.40	1.74	2.29	7.08	7.42	7.03	3.80	2.26
12	3.29	1.81	1.50	1.43	1.40	1.75	2.34	7.17	7.34	7.03	3.68	2.18
13	3.25	1.79	1.49	1.44	1.40	1.76	2.41	7.31	7.22	7.01	3.55	2.11
14	3.21	1.76	1.47	1.46	1.39	1.77	2.47	7.43	7.13	6.98	3.43	2.05
15	3.16	1.74	1.47	1.46	1.39	1.78	2.52	7.41	7.02	6.86	3.31	2.03
16	3.11	1.73	1.47	1.45	1.38	1.79	2.58	7.40	6.98	6.75	3.22	2.01
17	3.06	1.72	1.46	1.45	1.38	1.80	2.63	7.41	6.95	6.62	3.12	2.02
18	2.99	1.71	1.45	1.45	1.38	1.82	2.69	7.40	6.96	6.49	3.01	1.97
19	2.92	1.70	1.45	1.45	1.38	1.84	2.75	7.41	6.98	6.41	2.89	1.94
20	2.86	1.68	1.44	1.45	1.37	1.84	2.82	7.40	7.04	6.29	2.76	1.94
21	2.79	1.68	1.43	1.44	1.42	1.85	2.90	7.42	7.05	6.20	2.62	1.94
22	2.72	1.65	1.43	1.44	1.44	1.86	2.98	7.45	7.04	6.09	2.48	1.94
23	2.65	1.64	1.45	1.44	1.45	1.91	3.13	7.58	7.03	5.97	2.39	1.91
24	2.58	1.63	1.41	1.43	1.46	1.90	3.34	7.59	7.01	5.91	2.38	1.94
25	2.54	1.64	1.43	1.43	1.47	1.91	3.64	7.52	7.00	5.84	2.40	1.94
26	2.49	1.60	1.45	1.44	1.49	1.91	3.97	7.48	6.99	5.72	2.44	1.95
27	2.42	1.60	1.46	1.41	1.50	1.96	4.27	7.42	6.98	5.61	2.44	1.93
28	2.35	1.57	1.43	1.41	1.53	1.99	4.56	7.41	6.97	5.49	2.45	1.98
29	2.29	1.58	1.43	1.42	---	2.00	4.84	7.40	6.98	5.37	2.44	2.14
30	2.23	1.54	1.43	1.42	---	2.01	5.15	7.41	6.96	5.25	2.47	2.22
31	2.17	---	1.43	1.40	---	2.05	---	7.45	---	5.13	2.46	---
MAX	3.61	2.13	1.54	1.46	1.53	2.05	5.15	7.59	7.62	7.06	5.03	2.46
MIN	2.17	1.54	1.41	1.40	1.37	1.54	2.07	5.48	6.95	5.13	2.38	1.91

WTR YR 1977 MAX 7.62 MIN 1.37

13239000 NORTH FORK PAYETTE RIVER AT MCCALL, ID

LOCATION.--Lat 44°54'30", long 116°07'10", in SW¼ sec.8, T.18 N., R.3 E., Valley County, Hydrologic Unit 17050123, on left bank at McCall, 0.2 mi (0.3 km) downstream from outlet of Payette Lake, and at mile 75.2 (121 km).

DRAINAGE AREA.--144 mi² (373 km²). Mean altitude, 6,520 ft (1,987 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1908 to June 1917, May 1919 to current year. Prior to October 1942, published as "at Lardo."

REVISED RECORDS.--WSP 963: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,970 ft or 1,515 m (by barometer). Nonrecording gage at site 1 mi (1.6 km) downstream at different datum prior to Oct. 14, 1908, and Oct. 14, 1908, to Dec. 18, 1923, at sites near present gage at present datum.

REMARKS.--Records good. Flow regulated to some extent since several years prior to 1923 by gates at outlet of Payette Lake 0.2 mi (0.3 km) upstream (see sta 13238500) and several smaller lakes upstream. Diversion for fish hatchery bypasses station and is returned below gage. Records of daily discharge of this diversion published in annual water-supply papers from October 1942 to February 1953.

AVERAGE DISCHARGE.--66 years (1909-16, 1920-77), 366 ft³/s (10.4 m³/s), 265,200 acre-ft/yr (327 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,950 ft³/s (140 m³/s) June 19, 1974; maximum gage height, 8.16 ft (2.487 m) June 19, 1974; no flow Nov. 5-8, 1931, Nov. 17-24, 1933, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 750 ft³/s (21.2 m³/s) May 24 (gage height, 3.83 ft or 1.167 m); minimum, 3.5 ft³/s (0.099 m³/s) Apr. 6 (gage height, 1.19 ft or 0.363 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.15	3.5	2.2	77.0
1.3	7.0	2.5	134
1.5	14.5	3.0	297
1.8	34.0	3.5	550
2.0	52.5	4.0	860

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	166	43	27	27	5.3	4.1	9.9	311	29	338	54
2	84	159	42	28	27	5.3	4.0	11	407	29	334	54
3	88	145	41	30	27	5.0	4.0	14	533	27	339	55
4	91	135	39	31	25	5.3	3.9	15	596	27	338	55
5	93	126	38	30	26	5.2	3.9	16	639	28	343	54
6	97	117	37	30	26	5.3	3.8	17	642	30	338	54
7	97	111	41	29	26	5.4	4.4	19	647	30	343	55
8	97	105	38	29	26	6.2	5.4	23	600	29	352	54
9	95	99	40	29	28	6.0	7.0	16	622	29	352	50
10	95	93	39	27	26	5.7	7.3	22	563	29	347	48
11	93	88	37	27	26	5.9	6.6	26	520	29	343	64
12	93	86	37	28	25	6.1	6.4	37	548	29	343	175
13	115	81	35	28	25	6.2	6.0	50	577	28	338	158
14	124	76	35	28	26	6.1	5.5	247	542	111	338	142
15	135	74	34	30	28	5.9	5.5	487	445	343	338	133
16	140	71	34	30	25	6.0	5.5	405	319	343	338	120
17	137	68	33	31	25	5.8	4.9	304	177	343	343	120
18	135	67	32	30	25	5.9	5.1	247	117	343	343	121
19	142	56	31	30	25	5.9	4.9	247	98	343	343	111
20	178	63	30	30	25	5.9	4.5	283	120	343	338	109
21	190	62	30	30	28	5.3	4.6	232	143	343	334	109
22	187	59	30	30	27	5.9	5.4	280	145	343	303	109
23	181	58	30	30	30	6.1	5.6	402	143	343	252	103
24	181	56	29	30	12	6.0	6.1	531	125	339	103	105
25	181	55	29	28	5.6	6.3	6.5	731	90	347	46	107
26	181	53	30	28	6.2	5.4	7.3	695	78	343	52	109
27	178	48	30	28	5.9	5.5	5.1	584	71	343	51	109
28	181	46	30	28	5.6	6.2	9.3	430	46	343	50	111
29	175	44	29	28	---	5.6	11	315	33	343	50	137
30	169	43	29	29	---	5.9	11	260	29	338	51	169
31	166	---	27	27	---	4.1	---	251	---	338	52	---
TOTAL	4181	2517	1060	900	636.3	176.7	178.1	7432.9	10015	6304	8182	2960
MEAN	135	83.9	34.2	29.0	22.7	5.70	5.94	240	334	203	264	98.7
MAX	190	166	43	30	30	6.3	11	731	642	347	352	175
MIN	82	43	27	27	5.6	4.1	3.8	9.9	29	27	46	48
AC-FT	8290	4990	2100	1790	1260	350	353	14740	19860	12500	16230	5840

CAL YR 1976 TOTAL 132718.0 MEAN 363 MAX 2310 MIN 27 AC-FT 263200
WTR YR 1977 TOTAL 44551.0 MEAN 122 MAX 731 MIN 3.8 AC-FT 88370

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13239000 NORTH FORK PAYETTE RIVER AT MCCALL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Miscellaneous samples of chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
19...	1733	155	19	--	10.0	12.0	0	--	--
DEC									
07...	1315	39	20	6.6	5.5	4.5	2	7	0
JAN									
10...	1646	25	21	--	-5.0	1.5	0	--	--
MAR									
09...	1100	6.3	27	--	5.0	1.0	--	--	--
APR									
05...	1550	3.9	30	--	13.0	5.5	--	--	--
MAY									
11...	1035	26	21	--	7.0	6.0	1	8	1
JUN									
22...	1130	146	20	--	19.5	17.5	1	--	--
AUG									
03...	1205	328	17	--	24.0	20.5	1	--	--
SEP									
14...	1200	142	19	7.7	15.5	16.5	3	--	--
29...	1210	139	19	8.1	10.5	11.5	51	7	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT									
19...	--	--	--	--	--	--	--	--	--
DEC									
07...	2.3	.3	1.0	23	.2	.4	8	0	7
JAN									
10...	--	--	--	--	--	--	--	--	--
MAR									
09...	--	--	--	--	--	--	--	--	--
APR									
05...	--	--	--	--	--	--	--	--	--
MAY									
11...	2.5	.5	1.0	20	.2	.4	9	0	7
JUN									
22...	--	--	--	--	--	--	--	--	--
AUG									
03...	--	--	--	--	--	--	--	--	--
SEP									
14...	--	--	--	--	--	--	--	--	--
29...	2.4	.3	1.0	22	.2	.4	9	0	7

13239000 NORTH FORK PAYETTE RIVER AT MCCALL, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT									
19...	--	--	--	--	--	--	--	--	--
DEC									
07...	1.5	.5	.0	4.5	15	.02	1.59	.07	.01
JAN									
10...	--	--	--	--	--	--	--	--	--
MAR									
09...	--	--	--	--	--	--	--	--	--
APR									
05...	--	--	--	--	--	--	--	--	--
MAY									
11...	1.2	.4	.1	5.2	16	.02	1.14	.02	.00
JUN									
22...	--	--	--	--	--	--	--	--	--
AUG									
03...	--	--	--	--	--	--	--	--	--
SEP									
14...	--	--	--	--	--	--	--	--	--
29...	1.3	.3	.1	4.2	14	.02	5.25	.01	.00

13240000 LAKE FORK PAYETTE RIVER ABOVE JUMBO CREEK, NEAR MCCALL, ID

LOCATION.--Lat 44°54'50", long 115°59'10", in NE¼ sec.8, T.18 N., R.4 E., Valley County, Hydrologic Unit 17040123, on left bank 100 ft (30.5 m) upstream from abandoned powerplant, 0.2 mi (0.3 km) upstream from Jumbo Creek, 3.5 mi (5.6 km) upstream from Lake Fork Reservoir dam, 5.5 mi (8.8 km) east of McCall, and at mile 21.0 (33.8 km).

DRAINAGE AREA.--48.9 mi² (127 km²). Mean altitude, 6,950 ft (2,118.4 m).

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,140 ft or 1,567 m (from topographic map). Prior to Nov. 10, 1945, nonrecording gage at site 200 ft (61 m) downstream at different datum.

REMARKS.--Records good except those for December to May, which are fair. No diversion above station. Flow regulated by Cruzen Reservoir, capacity 1,230 acre-ft (1.52 hm³).

AVERAGE DISCHARGE.--32 years, 147 ft³/s (4.16 m³/s), 40.82 in/yr (1,037 mm/yr), 106,500 acre-ft/yr (131 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,770 ft³/s (78.4 m³/s) June 26, 1971 (gage height, 9.15 ft or 2.709 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s); minimum, 1.2 ft³/s (34 dm³/s) Dec. 3, 1967; minimum gage height, 1.05 ft (0.320 m) part of each day Nov. 8-9, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 487 ft³/s (13.79 m³/s) June 8 (gage height, 6.18 ft or 1.884 m); minimum, 1.4 ft³/s (0.040 m³/s) Oct. 30 (gage height, 1.37 ft or 0.418 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27, 30, Dec. 1-10, 12, 14, 15, 17-26, Dec. 28 to Jan. 10)

Oct. 1 to Apr. 23

1.4	1.7	2.8	26
1.7	4.4	3.2	43
2.0	8.0	3.6	67
2.4	15	4.0	99

Apr. 24 to Sept. 30

2.0	8.0	3.8	92
2.4	17	4.8	191
2.8	33	5.8	375
3.3	58		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	18	11	12	13	12	13	286	219	41	15	27
2	23	26	11	12	12	12	13	323	267	40	14	22
3	29	29	12	12	12	12	13	244	214	55	14	20
4	25	24	13	13	12	12	14	187	241	62	14	18
5	24	22	12	12	12	12	16	155	262	52	13	16
6	24	21	11	11	12	12	18	139	258	44	13	16
7	23	20	11	13	12	13	23	130	260	40	13	14
8	22	20	12	12	12	13	38	128	370	37	13	14
9	22	20	14	11	12	13	66	124	298	35	12	13
10	21	20	13	12	12	13	54	173	207	33	12	13
11	21	19	14	12	12	12	53	172	200	31	11	12
12	21	19	14	13	12	13	59	152	175	30	11	12
13	20	16	15	13	13	12	70	173	149	28	10	11
14	20	15	12	13	12	12	60	204	136	26	10	11
15	20	19	12	13	12	11	56	172	120	24	10	15
16	20	20	15	12	12	12	67	150	106	23	9.9	21
17	19	19	12	13	13	13	66	135	98	22	9.5	31
18	19	19	12	13	12	12	67	56	91	21	9.4	28
19	19	19	11	13	12	13	67	20	86	24	9.0	22
20	19	17	10	13	12	12	67	22	83	22	8.7	48
21	19	17	11	13	13	13	73	47	79	20	8.7	49
22	19	18	12	13	12	12	94	108	73	20	9.7	43
23	18	16	12	12	12	13	146	168	181	21	9.4	37
24	18	16	12	12	12	13	199	200	294	21	9.9	48
25	20	18	12	13	11	12	253	194	181	32	34	57
26	20	14	13	13	13	12	290	180	62	23	46	68
27	20	7.0	15	12	12	13	263	173	53	20	42	60
28	19	9.5	11	13	12	13	238	158	49	18	24	67
29	11	12	11	12	---	13	251	140	46	17	24	168
30	1.9	12	12	12	---	13	253	97	43	16	31	152
31	8.6	---	12	12	---	13	---	93	---	16	41	---
TOTAL	608.5	541.5	380	385	340	386	2960	4703	4901	914	511.2	1133
MEAN	19.6	18.1	12.3	12.4	12.1	12.5	98.7	152	163	29.5	16.5	37.8
MAX	29	29	15	13	13	13	290	323	370	62	46	168
MIN	1.9	7.0	10	11	11	11	13	20	43	16	8.7	11
CFSM	.40	.37	.25	.25	.25	.26	2.02	3.11	3.33	.60	.34	.77
IN.	.46	.41	.29	.29	.26	.29	2.25	3.58	3.73	.70	.39	.86
AC-FT	1210	1070	754	764	674	766	5870	9330	9720	1810	1010	2250

CAL YR 1976 TOTAL 54959.0 MEAN 150 MAX 1100 MIN 1.9 CFSM 3.07 IN 41.81 AC-FT 109000
WTR YR 1977 TOTAL 17763.2 MEAN 48.7 MAX 370 MIN 1.9 CFSM 1.00 IN 13.51 AC-FT 35230

13244500 CASCADE RESERVOIR AT CASCADE, ID

LOCATION.--Lat 44°31'30", long 116°03'00", in NE¼NE¼ sec.26, T.14 N., R.3 E., Valley County, Hydrologic Unit 17050123, in gate-control structure at south end of Cascade Dam on North Fork Payette River, 0.5 mi (0.8 km) downstream from Willow Creek, 0.8 mi (1.3 km) northwest of Cascade, and at mile 40.2 (64.7 km).

DRAINAGE AREA.--620 mi² (1,600 km²). Mean altitude, 5,960 ft (1,817 m).

PERIOD OF RECORD.--January to December 1948 (fragmentary), January 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Datum of gage is 0.66 ft (0.201 m) below mean sea level, datum of 1929, supplementary adjustment of 1961. Prior to Nov. 7, 1958, nonrecording gage at north end of dam at present datum.

REMARKS.--Reservoir is formed by earth-fill dam completed in May 1949. Partial storage began Nov. 7, 1947. Full storage first reached in June 1957. Capacity, 703,200 acre-ft (867 hm³) between elevations 4,766 ft or 1,452.7 m (4.0 ft or 1.22 m above sill of outlet tunnel) and 4,828 ft or 1,471.6 m (top of spillway gates). Figures given herein represent contents above elevation 4,766 ft (1,452.7 m). The Bureau of Reclamation attempts to limit withdrawal to elevation 4,787.5 ft (1,459.23 m), retaining 50,000 acre-ft (61.6 hm³) capacity as dead storage. Contents table computed from tables furnished by Bureau of Reclamation (revised 1950). Water is used for irrigation of lands in the Payette Division of the Boise Project and for power at Black Canyon powerplant near Emmett.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 727,000 acre-ft (896 hm³) June 10, 11, 1957 (elevation, 4,828.89 ft or 1,471.846 m); no contents at times during March and September 1948 (prior to filling of reservoir); minimum after first filling of reservoir in June 1957, 193,000 acre-ft (238 hm³) Feb. 8, 1962 (elevation, 4,802.15 ft or 1,463.695 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 524,100 acre-ft (646 hm³) Oct. 1 (elevation, 4,820.70 ft or 1,469.349 m); minimum, 212,000 acre-ft (261 hm³) Apr. 7 (elevation, 4,803.52 ft or 1,464.113 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,802.0	191,000	4,815.0	404,900
4,806.0	248,600	4,820.0	508,500
4,810.0	313,500	4,822.0	553,800

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	521400	485800	481600	450300	415100	407600	414100	402400	392500	379500	310400	243400
2	518900	486300	481300	449700	413900	407600	414300	401800	393000	377000	308000	242200
3	516700	486500	480700	449500	413000	407800	414500	400990	393600	374800	305600	240700
4	513400	486700	480300	448000	412600	408000	414900	400000	395200	372400	303600	239200
5	510500	486700	479200	446600	410800	408000	415300	398800	396300	369600	300900	237800
6	508300	486700	478800	444600	409800	407600	416100	396900	397700	365800	299100	236500
7	505600	486700	477900	443400	408400	408200	417500	395000	399200	364900	296000	235000
8	503200	486700	477900	442100	407400	408600	419700	393400	401400	362200	294000	232300
9	501000	486700	477300	440700	406500	410000	421900	391700	402200	359600	292200	230100
10	498200	486700	476600	439300	405300	410200	423700	390700	402900	357200	289900	228300
11	495600	486700	476000	437700	405100	410200	424800	390500	402000	359900	287400	226600
12	493000	486500	475100	436500	404900	410400	425200	389600	401000	352200	285600	225000
13	490200	486500	474500	435300	405100	410600	425200	388400	400200	349700	283200	223200
14	488600	486100	473900	434300	405100	410800	425000	387300	400200	347200	281000	221500
15	487300	486100	473200	433300	405300	410800	424800	386500	400400	344800	279100	220600
16	485800	486100	472200	432000	405500	410800	424800	386100	400600	342500	276800	219200
17	485000	485800	470500	431200	405500	411000	423900	385400	401400	340900	274200	218000
18	483900	486100	469000	430000	405700	411200	422500	384600	402000	338800	272000	216600
19	484600	486100	467500	429000	405700	411600	421500	384400	403300	336700	269600	215300
20	484600	485800	465800	428000	405700	411600	419700	384200	403300	334400	267200	214500
21	484600	485600	464400	427000	406300	411600	417700	384000	402000	333100	265000	214300
22	484800	485600	462900	426000	406700	411600	415900	363500	400000	331400	262500	213700
23	484800	485400	461400	425000	406900	412200	413900	384000	398500	329100	259800	212400
24	485000	485200	460000	423700	407100	412200	412400	384400	396700	327500	258100	213100
25	485200	485400	458500	422600	407100	412400	410800	386700	394400	325800	255300	213400
26	485400	484800	457300	421700	407400	412400	410000	388600	392500	323500	254200	213700
27	485400	484100	456200	420500	407400	413500	408600	389800	390300	321300	252500	213600
28	485600	483900	455000	419300	407600	413700	407600	391100	388000	319000	250400	214500
29	485400	483300	454000	418100	---	413900	405700	391900	385400	316600	248200	216000
30	485600	482600	452700	417300	---	413700	404500	392500	382500	314200	247000	216700
31	485600	---	451500	416300	---	414100	---	392700	---	311600	245200	---
MAX	521400	486700	481600	450300	415100	414100	425200	402400	403300	379500	310400	243400
MIN	483900	482600	451500	416300	404900	407600	404500	383500	382500	311600	245200	212400
(†)	4818.95	4818.81	4817.33	4815.58	4815.14	4815.47	4814.98	4814.37	4813.84	4809.90	4805.78	4803.85
(‡)	-36900	-3000	-31000	-35200	-8700	+6500	-9600	-11800	-10200	-70700	-66600	-28500

CAL YR 1976.......... ‡ -98100
WTR YR 1977.......... ‡ -305800

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13245000 NORTH FORK PAYETTE RIVER AT CASCADE, ID

LOCATION.--Lat 44°30'44", long 116°01'52". in NE¼NE¼ sec.36, T.14 N., R.3 E., Valley County, Hydrologic Unit 17050123, 0.5 mi (0.8 km) upstream from Beaver Creek, 1.6 mi (2.6 km) downstream from Cascade Dam, and at mile 38.6 (62.1 km).

DRAINAGE AREA.--626 mi² (1,621 km²). Mean altitude, 5,960 ft (1,820 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,730 ft or 1,442 m (from topographic map). Prior to Jan. 28, 1947, nonrecording gages at present or nearby sites at present datum. Nov. 6, 1958, to Sept. 30, 1965, water-stage recorder at site 1.5 mi (2.4 km) upstream at datum 4,734.59 ft (1,443.103 m) above mean sea level (used as supplementary gage Oct. 1, 1965, to current year). Nov. 6, 1958, to Sept. 30, 1965, present gage used as supplementary gage.

REMARKS.--Records good except February to April, which are fair. Flow regulated by Payette Lake (see sta 13238500), Lake Fork Reservoir, and Cascade Reservoir 1.6 mi (2.6 km) upstream, beginning November 1947 (see sta 13244500). Diversions above station for irrigation of about 39,000 acres or 16,000 hm² (1966 determination).

AVERAGE DISCHARGE.--36 years, 1,045 ft³/s (29.59 m³/s), 757,100 acre-ft/yr (934 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,320 ft³/s (207 m³/s) May 10, 1947 (gage height, 6.29 ft or 1.917 m); no flow for part of Oct. 14, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,720 ft³/s (48.7 m³/s) Oct. 8, 10; maximum gage height, 2.45 ft (0.747 m) Oct. 1-4, 7-11; minimum discharge, 107 ft³/s (3.03 m³/s) Mar. 18 (gage height, 0.67 ft or 0.204 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

0.6	101	1.7	736
0.8	165	2.0	1,110
1.1	286	2.5	1,800
1.4	457		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	273	506	758	715	127	127	1110	420	1330	1500	874
2	1700	273	506	758	715	127	127	1120	433	1340	1490	791
3	1690	273	506	758	715	127	134	1050	218	1340	1490	780
4	1700	273	506	886	715	127	144	1010	148	1330	1470	780
5	1690	273	506	961	715	131	148	1120	183	1300	1470	780
6	1690	273	506	961	704	131	137	1270	292	1240	1500	874
7	1700	273	506	961	715	131	134	1300	206	1250	1500	973
8	1720	273	506	948	725	131	131	1260	148	1330	1500	961
9	1700	273	506	948	725	131	131	1170	148	1330	1490	961
10	1720	273	506	935	725	131	131	1110	144	1340	1470	961
11	1700	273	506	935	389	127	158	850	144	1340	1450	961
12	1700	273	498	935	158	127	524	850	144	1340	1430	923
13	1700	273	498	886	158	127	615	935	269	1300	1420	935
14	1290	273	498	791	137	124	532	948	577	1270	1420	948
15	999	273	624	725	118	124	532	948	715	1300	1450	948
16	999	273	780	725	124	121	596	961	624	1330	1490	1030
17	999	273	846	725	124	118	814	935	568	1340	1520	1010
18	568	273	973	725	124	112	948	791	653	1410	1530	1010
19	278	273	961	715	124	112	999	586	694	1420	1530	935
20	278	273	961	715	124	110	1140	420	803	1450	1520	814
21	278	273	961	736	124	110	1310	498	861	1450	1520	736
22	278	269	961	758	124	125	1330	586	961	1450	1520	644
23	278	269	961	736	124	124	1350	577	1010	1450	1500	559
24	278	269	948	736	127	130	1290	325	1070	1450	1490	426
25	278	269	948	736	124	135	1090	151	1090	1450	1420	331
26	278	269	948	736	127	135	986	242	1080	1450	1330	238
27	278	269	850	725	127	140	961	234	1170	1430	1200	134
28	278	269	769	725	127	138	999	151	1260	1430	1140	134
29	278	378	769	725	---	130	1110	206	1300	1450	1140	134
30	273	506	769	725	---	125	1120	282	1330	1490	1140	134
31	273	---	769	715	---	125	---	264	---	1490	1070	---
TOTAL	30559	8500	21898	24804	9753	3913	19748	23260	18663	42620	44110	21719
MEAN	986	283	706	800	348	126	658	750	622	1375	1423	724
MAX	1720	506	973	961	725	140	1350	1300	1330	1490	1530	1030
MIN	273	269	498	715	118	110	127	151	144	1240	1070	134
AC-FT	60610	16860	43430	49200	19350	7760	39170	46140	37020	84540	87490	43080

CAL YR 1976 TOTAL 444280 MEAN 1214 MAX 2650 MIN 269 AC-FT 881200
WTR YR 1977 TOTAL 269547 MEAN 738 MAX 1720 MIN 110 AC-FT 534600

13245000 NORTH FORK PAYETTE RIVER AT CASCADE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
OCT 19...	1359	279	38	--	19.0	13.5	--	--
DEC 06...	1516	525	45	6.7	.0	4.0	12	0
JAN 10...	1205	926	40	--	1.5	2.5	--	--
MAR 08...	1115	128	--	--	2.0	1.5	--	--
APR 01...	0905	129	--	--	1.0	35.0	--	--
MAY 09...	1445	1150	37	8.4	17.5	11.0	12	0
JUN 20...	1540	828	38	--	16.5	17.5	--	--
AUG 01...	1730	1440	44	--	31.0	22.0	--	--
SEP 12...	1550	900	43	8.3	18.5	24.5	--	--
27...	1340	135	42	7.2	18.5	12.0	13	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 19...	--	--	--	--	--	--	--	--	--
DEC 06...	3.6	.7	2.3	28	.3	.7	20	16	2.3
JAN 10...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	--	--
MAY 09...	3.7	.7	2.6	30	.3	.7	19	16	1.5
JUN 20...	--	--	--	--	--	--	--	--	--
AUG 01...	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--
27...	4.2	.6	2.8	30	.3	.8	21	17	1.3

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 19...	--	--	--	--	--	--	--	--
DEC 06...	.8	.1	7.0	28	.04	39.7	.06	.04
JAN 10...	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	--
MAY 09...	.6	.1	7.5	27	.04	83.8	.03	.05
JUN 20...	--	--	--	--	--	--	--	--
AUG 01...	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--
27...	.8	.1	5.5	27	.04	9.84	.08	.06

13246000 NORTH FORK PAYETTE RIVER NEAR BANKS, ID

LOCATION.--Lat 44°06'50", long 116°06'25", in NW¼SE¼ sec.16, T.9 N., R.3 E., Boise County, Hydrologic Unit 17050123, Boise National Forest, on right bank 40 ft (12 m) downstream from highway bridge, 2.5 mi (4.0 km) north of Banks, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--933 mi² (2,420 km²). Mean altitude, 5,800 ft (1,770 m).

PERIOD OF RECORD.--April 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,081.13 ft (939.128 m) above mean sea level, unadjusted.

REMARKS.--Records good. Flow regulated by Payette Lake (see sta 13238500), Lake Fork Reservoir (see sta 13241000), and Cascade Reservoir 37.1 mi (59.7 km) upstream, beginning November 1947 (see sta 13244500). Diversions above station for irrigation of about 50,800 acres or 20,600 hm² (1966 determination).

AVERAGE DISCHARGE.--30 years, 1,367 ft³/s (38.71 m³/s), 990,400 acre-ft/yr (1,221 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,830 ft³/s (250 m³/s) May 11, 1947 (gage height, about 13.5 ft or 4.11 m), estimated on basis of records for station near Smiths Ferry; minimum recorded, 36 ft³/s (1.02 m³/s) Dec. 21, 1947 (gage height, 3.01 ft or 0.917 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,760 ft³/s (49.84 m³/s) Oct. 2, 3, 4, 8, 11 (gage height, 7.26 ft or 2.213 m); minimum daily, 209 ft³/s (5.92 m³/s) Mar. 22; minimum gage height, 3.84 ft (1.170 m) Mar. 22, 23.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 7-15, 20; stage-discharge relation affected by ice Jan. 7-11)

3.8	199	6.0	960
4.0	242	7.0	1,560
4.5	368	8.0	2,310
5.0	527		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	365	600	780	755	218	220	1170	403	1280	1390	1010
2	1730	364	600	780	746	214	218	1190	564	1290	1400	871
3	1730	366	600	780	746	216	227	1190	493	1290	1390	833
4	1730	365	600	780	741	216	249	1090	292	1290	1380	823
5	1720	360	600	991	737	214	348	1080	229	1280	1370	814
6	1710	360	600	1010	737	214	403	1260	267	1220	1390	809
7	1720	355	600	1000	733	214	412	1340	363	1160	1410	940
8	1730	355	590	1000	746	231	496	1360	282	1220	1430	965
9	1730	355	590	990	755	270	564	1280	263	1250	1410	965
10	1730	355	590	990	755	242	443	1320	244	1260	1390	970
11	1730	355	590	980	746	231	388	1170	279	1270	1370	970
12	1720	355	600	975	337	224	434	935	297	1260	1340	970
13	1720	355	600	970	260	224	773	986	260	1250	1330	925
14	1660	355	600	890	251	218	737	1030	422	1200	1330	970
15	1060	355	600	805	231	216	681	1010	698	1200	1330	960
16	1010	355	720	777	218	216	698	1020	750	1220	1350	1000
17	1000	355	800	777	218	220	823	1030	629	1230	1380	1050
18	971	355	1040	777	218	214	981	970	649	1270	1430	1040
19	460	350	1030	777	216	212	1050	837	694	1310	1430	1040
20	389	350	1020	773	216	214	1110	637	768	1340	1430	945
21	378	350	1000	768	222	212	1310	556	837	1350	1420	876
22	372	350	1000	795	229	209	1410	633	895	1360	1430	786
23	368	350	1000	791	218	216	1470	737	955	1360	1420	741
24	366	350	1000	765	222	229	1510	759	991	1380	1450	649
25	377	350	1000	777	218	235	1440	443	1050	1390	1430	538
26	375	350	940	773	216	235	1330	325	1050	1380	1380	425
27	368	350	860	777	216	244	1190	453	1050	1360	1230	312
28	366	350	800	782	216	242	1080	397	1170	1340	1140	216
29	367	370	800	777	---	222	1120	307	1220	1340	1120	249
30	366	460	800	777	---	216	1170	377	1260	1370	1140	265
31	364	---	800	782	---	216	---	377	---	1380	1110	---
TOTAL	33037	10772	23570	26169	12119	6914	24265	27269	19324	40100	41950	23927
MEAN	1066	359	760	844	433	223	809	880	644	1294	1353	798
MAX	1730	460	1040	1010	755	270	1510	1360	1260	1390	1450	1050
MIN	364	350	590	768	216	209	218	307	229	1160	1110	216
AC-FT	65530	21370	46750	51910	24040	13710	48130	54090	38330	79540	83210	47460

CAL YR 1976 TOTAL 534604 MEAN 1461 MAX 2790 MIN 350 AC-FT 1060000
WTR YR 1977 TOTAL 289416 MEAN 793 MAX 1730 MIN 209 AC-FT 574100

NOTE.--No gage-height record Nov. 4 to Jan. 4.

13247500 PAYETTE RIVER NEAR HORSESHOE BEND, ID

LOCATION.--Lat 43°56'33", long 116°11'45", in NE¼SE¼ sec.15, T.7 N., R.2 E., Boise County, Hydrologic Unit 17050122, on left bank 0.5 mi (0.8 km) downstream from Porter Creek, 0.6 mi (1 km) upstream from concrete highway bridge on State Highway 55, 2 mi (3.2 km) north of Horseshoe Bend, and at mile 60.8 (97.8 km).

DRAINAGE AREA.--2,230 mi² (5,780 km²), approximately. Mean altitude, 5,850 ft (1,783.1 m).

PERIOD OF RECORD.--February 1906 to September 1916, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 533: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,625.61 ft (800.286 m) above mean sea level, unadjusted. Prior to Nov. 23, 1912, nonrecording gage at site 1.8 mi (2.9 km) upstream at different datum. Nov. 23, 1912, to Apr. 16, 1953, water-stage recorder at site 1,000 ft (304.8 m) downstream at datum 2.1 ft (0.613 m) lower.

REMARKS.--Records good. Flow regulated by Deadwood Reservoir beginning November 1930 (see sta 13236000), and Cascade Reservoir 51.9 mi (83.5 km) upstream beginning November 1947 (see sta 13244500), and other reservoirs upstream. Diversions above station for irrigation of about 55,100 acres or 22,300 hm² (1966 determination).

AVERAGE DISCHARGE.--68 years, 3,250 ft³/s (92.04 m³/s), 2,355,000 acre-ft/yr (2,904 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s (764 m³/s) Dec. 23, 1964 (gage height, 16.35 ft or 4.983 m); minimum, 350 ft³/s (9.91 m³/s) Dec. 17, 1935 (gage height, 0.26 ft or 0.079 m, site and datum then in use), from rating curve extended below 600 ft³/s (17.0 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,820 ft³/s (79.9 m³/s) June 8 (gage height, 5.82 ft or 1.774 m); minimum, 674 ft³/s (19.1 m³/s) Nov. 27, 28, 29, Mar. 16 (gage height, 2.40 ft or 0.732 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.5	711	5.0	2,000
3.0	928	6.0	2,890
4.0	1,380		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2280	998	1140	1290	1250	790	792	2260	1860	2300	2190	1800
2	2280	1010	1150	1320	1250	777	785	2300	2240	2320	2200	1570
3	2300	1010	1140	1340	1400	773	782	2280	2300	2360	2180	1480
4	2310	998	1170	1310	1430	766	815	2110	2030	2390	2170	1450
5	2290	992	1180	1430	1200	757	960	2000	1970	2390	2150	1450
6	2280	987	1090	1390	1200	779	1120	2100	2040	2280	2170	1430
7	2260	981	1100	1400	1200	983	1240	2190	2310	2180	2180	1540
8	2270	977	1150	1450	1210	868	1490	2230	2540	2200	2220	1570
9	2260	976	1170	1480	1240	805	1730	2110	2240	2230	2230	1560
10	2250	974	1130	1500	1250	808	1480	2230	1990	2220	2200	1570
11	2250	972	1100	1570	1240	797	1280	2240	2230	2210	2160	1570
12	2240	967	1090	1590	950	770	1260	1890	2140	2190	2080	1560
13	2230	946	1080	1580	828	760	1650	1860	1860	2170	2050	1520
14	2220	916	1110	1440	821	750	1630	1910	1850	2110	2030	1460
15	1680	964	1070	1340	800	750	1480	1910	2190	2100	2030	1400
16	1590	997	1210	1300	778	763	1490	1910	2290	2110	2070	1420
17	1580	983	1340	1290	782	794	1650	1930	2110	2110	2090	1490
18	1570	974	1400	1290	782	762	1810	1880	2010	2140	2130	1470
19	1150	969	1420	1290	781	771	1850	1910	2040	2160	2140	1420
20	1020	961	1400	1270	778	772	1860	1900	2110	2200	2130	1340
21	1010	946	1400	1260	800	762	2000	1830	2170	2210	2110	1310
22	1000	950	1470	1280	825	769	2160	1880	2140	2260	2130	1230
23	1000	941	1490	1270	796	799	2280	2170	2150	2300	2110	1140
24	995	932	1470	1210	794	829	2410	2480	2180	2330	2140	1160
25	1030	959	1450	1200	768	822	2390	2200	2200	2460	2240	1160
26	1050	925	1500	1220	768	810	2300	1960	2170	2350	2270	977
27	1020	776	1490	1210	771	820	2240	2190	2130	2250	2140	844
28	1000	740	1340	1210	773	836	2130	2120	2230	2180	1950	715
29	1000	767	1260	1210	---	792	2190	1910	2240	2160	1880	776
30	1010	955	1250	1220	---	781	2260	1860	2270	2170	1900	986
31	1000	---	1270	1240	---	782	---	1880	---	2190	1920	---
TOTAL	51425	28443	39030	41400	27465	24617	49514	63630	64230	69250	65590	40368
MEAN	1659	948	1259	1335	981	794	1650	2053	2141	2234	2116	1346
MAX	2310	1010	1500	1590	1430	983	2410	2480	2540	2460	2270	1800
MIN	995	740	1070	1200	768	750	782	1830	1850	2100	1880	715
AC-FT	102000	56420	77420	82120	54480	48830	98210	126200	127400	137400	130100	80070

CAL YR 1976 TOTAL 1269788 MEAN 3469 MAX 11200 MIN 740 AC-FT 2519000
WTR YR 1977 TOTAL 564962 MEAN 1548 MAX 2540 MIN 715 AC-FT 1121000

13249500 PAYETTE RIVER NEAR EMMETT, ID

LOCATION.--Lat 43°55'50", long 116°26'30", in SW¼NE¼ sec.22, T.7 N., R.1 W., Gem County, Hydrologic Unit 17050122, on right bank 0.3 mi (0.5 km) downstream from Black Canyon Dam, 5 mi (8.0 km) northeast of Emmett, and at mile 38.4 (61.8 km).

DRAINAGE AREA.--2,680 mi² (6,940 km²), approximately.

PERIOD OF RECORD.--June 1925 to current year.

REVISED RECORDS.--WSP 1153: 1946(m), 1948(m).

GAGE.--Water-stage recorder. Altitude of gage is 2,400 ft or 730 m (from topographic map).

REMARKS.--Records good. Flow regulated by Deadwood Reservoir beginning November 1930 (see sta 13236000), Cascade Reservoir beginning November 1947 (see sta 13244500), other smaller reservoirs, and to some extent by Black Canyon Dam 0.3 mi (0.5 km) upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 160,000 acres (65,000 hm²), of which about 43,700 acres (18,000 hm²) are below station and about 53,000 acres (21,000 hm²) are in adjacent basins (1966 determination).

AVERAGE DISCHARGE.--52 years, 3,007 ft³/s (85.2 m³/s), 2,179,000 acre-ft/yr (2,687 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,700 ft³/s (926 m³/s) Dec. 23, 1964 (gage height, 15.88 ft or 4.840 m); minimum daily discharge, 0.7 ft³/s (19.8 dm³/s) Jan. 7, 1957 (gage height, -1.49 ft or -0.454 m), when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,880 ft³/s (167 m³/s) Dec. 12 (gage height, 5.93 ft or 1.808 m); minimum, 361 ft³/s (10.22 m³/s) Sept. 27, 28 (gage height, 1.26 ft or 0.384 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.3	375	2.5	1,150
1.5	455	3.0	1,690
2.0	730	3.5	2,280

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1920	1100	1220	1320	1250	896	824	765	840	840	793	840
2	1910	1100	1320	1450	1460	896	737	786	1020	864	808	647
3	1930	1120	1220	1530	1310	872	779	832	1220	944	793	555
4	1960	1100	1240	1570	1320	816	744	824	969	960	793	555
5	1920	996	1330	1530	1320	832	824	730	808	978	793	550
6	1920	960	1050	1500	1280	816	1140	710	793	928	800	545
7	1910	960	928	1380	1310	840	1180	723	912	816	800	505
8	1910	952	896	1390	1220	880	1330	808	1270	816	832	515
9	1870	952	1120	1230	1370	1160	1620	832	1020	848	840	521
10	1900	960	1050	1290	1410	1110	1600	856	824	840	824	530
11	1870	960	944	1330	1390	904	978	1140	872	848	793	539
12	1870	960	1100	1540	1250	856	944	765	936	786	730	521
13	1860	952	912	1580	810	904	1070	659	765	737	723	506
14	1850	952	888	1730	870	848	1280	710	717	717	717	459
15	1840	960	920	1530	904	772	1000	751	751	710	737	412
16	1930	969	978	1450	816	737	928	697	880	691	779	437
17	1910	987	1090	1440	730	779	904	678	880	678	772	502
18	1900	1080	1180	1440	691	872	872	684	816	684	744	633
19	1620	1220	1340	1460	723	800	816	678	808	710	744	931
20	1280	1190	1480	1550	765	779	808	704	704	751	751	385
21	1320	1210	1570	1520	758	779	772	704	772	779	765	401
22	1250	1150	1570	1430	758	737	772	710	816	800	744	486
23	1270	1200	1570	1440	824	779	772	751	840	848	758	515
24	1250	1140	1580	1370	872	848	856	1260	832	928	772	561
25	1290	1160	1590	1260	800	872	996	1100	832	969	880	629
26	1340	1170	1610	1250	723	808	936	840	824	1020	996	431
27	1290	960	1650	1260	691	808	864	1180	824	864	969	375
28	1260	848	1600	1280	772	856	793	1260	832	808	779	540
29	1260	848	1470	1210	---	848	765	987	864	786	697	697
30	1260	928	1370	1230	---	737	765	864	864	793	678	816
31	1240	---	1400	1220	---	765	---	952	---	800	816	---
TOTAL	51110	31044	39186	43710	28397	26206	28669	25940	26105	25541	24420	16539
MEAN	1649	1035	1264	1410	1014	845	956	837	870	824	788	551
MAX	1960	1220	1650	1730	1460	1160	1620	1260	1270	1020	996	931
MIN	1240	848	888	1210	691	737	737	659	704	678	678	375
AC-FT	101400	61580	77730	86700	56330	51980	56860	51450	51780	50660	48440	32810

CAL YR 1976 TOTAL 1178450 MEAN 3220 MAX 10900 MIN 848 AC-FT 2337000
WTR YR 1977 TOTAL 366867 MEAN 1005 MAX 1960 MIN 375 AC-FT 727700

NOTE.--No gage-height record Jan. 13 to Feb. 14.

13250600 BIG WILLOW CREEK NEAR EMMETT, ID

LOCATION.--Lat 44°04'25", long 116°29'10", in SE¼NW¼ sec.32, T.9 N., R.1 W., Payette County, Hydrologic Unit 17050122, Bureau of Land Management lands, 62 ft (19 m) downstream from bridge on Emmett-Council road, 500 ft (152.4 m) upstream from mouth of Four-Mile Creek, 13.5 mi (21.7 km) north of Emmett, and at mile 24.5 (39.4 km).

DRAINAGE AREA.--47.4 mi² (123 sq² km).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,810 ft or 856.5 m (from topographic map).

REMARKS.--Records good.

AVERAGE DISCHARGE.--15 years (1963-77), 23.0 ft³/s (0.651 m³/s), 16,660 acre-ft/yr (20.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) Dec. 22, 1964 (gage height, 7.61 ft or 2.319 m); minimum, 0.97 ft³/s (0.027 m³/s) July 8, 9, 1975 (gage height, 1.96 ft or 0.597 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 24 or 25, 1957, reached a peak of 2,100 ft³/s or 59.5 m³/s (gage height not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft³/s (0.93 m³/s) Mar. 9 (gage height, 2.58 ft or 0.786 m), no peak above base of 250 ft³/s (8.08 m³/s); minimum, 2.6 ft³/s (0.074 m³/s) Aug. 19 (gage height, 1.90 ft or 0.579 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 26-29, Dec. 12-14, 20, 21, Jan. 6-12, Jan. 28 to Feb. 2)

2.1	2.7	2.5	21
2.3	9.9		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	6.8	5.9	5.7	5.6	7.2	7.2	5.5	4.8	4.0	3.5	4.1
2	5.3	7.0	5.9	5.9	5.8	6.8	6.2	5.7	4.6	4.0	3.4	3.8
3	5.2	7.4	5.9	6.2	5.9	6.8	6.2	5.7	4.8	4.0	3.4	3.8
4	4.8	7.0	6.2	5.9	5.9	6.4	6.2	6.4	4.8	4.0	3.4	3.8
5	5.3	6.8	6.2	7.5	5.9	6.4	6.2	6.2	4.3	4.0	3.5	3.8
6	5.3	6.6	5.3	5.5	5.9	6.8	6.2	5.9	4.3	3.8	3.4	3.8
7	5.0	6.4	5.7	5.6	5.9	6.8	5.9	6.2	5.0	3.8	3.5	3.8
8	5.3	6.4	6.2	6.0	5.9	7.5	5.9	5.9	4.6	3.8	3.7	3.8
9	5.3	6.2	6.4	6.0	6.2	18	5.9	5.9	4.8	3.8	3.5	4.0
10	5.3	6.2	5.9	6.0	6.2	9.8	5.9	6.2	5.0	3.8	3.5	4.1
11	5.3	6.0	5.9	6.0	6.4	7.5	5.9	5.9	5.0	3.6	3.4	4.0
12	5.5	6.0	5.2	6.2	6.8	7.5	5.7	5.0	4.8	3.6	3.4	3.8
13	5.5	6.0	5.4	6.2	7.2	7.2	5.9	5.3	4.8	3.6	3.5	4.0
14	5.5	5.8	5.4	6.2	7.2	6.8	5.9	5.3	4.8	3.6	3.5	4.1
15	5.5	6.0	5.7	6.2	6.8	6.8	5.7	5.0	4.8	3.6	3.3	4.3
16	5.7	6.4	5.7	6.2	6.8	6.4	5.7	5.7	4.6	3.5	3.3	5.3
17	5.7	6.6	5.7	6.2	7.2	7.2	5.7	5.5	4.5	3.5	3.0	5.5
18	5.7	6.6	5.7	6.2	7.2	6.8	5.5	5.5	4.5	3.5	3.3	4.6
19	5.9	6.6	5.5	5.9	7.2	6.8	5.7	5.5	4.5	3.5	3.1	4.8
20	5.9	6.6	5.0	5.9	7.2	6.4	5.7	5.3	4.5	3.6	3.1	5.7
21	5.9	6.6	5.2	5.9	8.7	6.4	5.0	5.0	4.8	3.6	3.5	5.5
22	5.9	6.6	5.5	5.9	7.9	6.4	5.5	5.0	4.6	3.5	3.7	5.5
23	6.2	6.4	5.7	5.7	6.8	6.4	5.3	6.4	4.5	3.5	3.3	5.0
24	6.2	6.4	5.7	5.7	6.8	6.4	5.5	6.2	4.5	4.1	3.7	7.5
25	7.2	6.4	5.7	5.7	6.8	6.4	5.3	5.5	4.5	4.0	4.8	5.7
26	7.0	6.0	5.9	5.9	6.4	5.9	5.0	6.2	4.2	3.8	5.3	5.3
27	6.8	5.0	5.9	5.9	6.4	6.2	5.3	7.5	4.2	3.7	4.6	5.0
28	6.8	4.8	5.9	5.7	7.2	6.2	5.5	5.3	4.2	3.4	4.3	5.3
29	6.8	5.4	5.9	5.5	---	6.2	5.5	5.3	4.2	3.5	4.3	6.8
30	6.8	5.8	5.7	5.5	---	5.9	5.5	5.0	4.0	3.5	4.6	5.7
31	6.8	---	5.7	5.6	---	6.2	---	5.0	---	3.5	4.6	---
TOTAL	180.7	188.8	177.6	184.5	186.2	220.5	172.6	176.0	137.5	114.7	114.4	142.2
MEAN	5.83	6.29	5.73	5.95	6.65	7.11	5.75	5.68	4.58	3.70	3.69	4.74
MAX	7.2	7.4	6.4	7.5	8.7	18	7.2	7.5	5.0	4.1	5.3	7.5
MIN	4.8	4.8	5.0	5.5	5.6	5.9	5.0	5.0	4.0	3.4	3.0	3.8
AC-FT	358	374	352	366	369	437	342	349	273	228	227	282

CAL YR 1976 TOTAL 7504.0 MEAN 20.5 MAX 178 MIN 2.3 AC-FT 14880
WTR YR 1977 TOTAL 1995.7 MEAN 5.47 MAX 18 MIN 3.0 AC-FT 3960

NOTE.--No gage-height record Oct. 24 to Nov. 24, June 16 to July 21.

13251000 PAYETTE RIVER NEAR PAYETTE, ID

LOCATION.--Lat 44°02'33", long 116°55'27", in NE¼SE¼SW¼ sec.10, T.8 N., R.5 W., Payette County, Hydrologic Unit 17050122, Bureau of Reclamation lands, on right bank just upstream from bridge on U.S. Highway 95, 1.8 mi (2.9 km) south of Payette, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--3,240 mi² (8,390 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1935 to current year. Records for January 1895 to July 1897 (published as "at Payette" in 18th and 19th Annual Reports) have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1397: 1949(m), 1952, 1953-54(m).

GAGE.--Water-stage recorder. Datum of gage is 2,138.44 ft (651.797 m) above mean sea level, unadjusted. Aug. 1, 1935, to Aug. 7, 1939, nonrecording gage at site 50 ft (15 m) downstream at present datum.

REMARKS.--Records excellent. Flow regulated by Deadwood Reservoir (see sta 13236000), Cascade Reservoir beginning November 1947 (see sta 13244500), other smaller reservoirs, and to some extent by Black Canyon Dam 34.6 mi (55.7 km) upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 196,000 acres (79,000 hm²) of which about 100 acres (40 hm²) are by withdrawals from ground water, about 5,100 acres (2,100 hm²) are located below station, and about 53,000 acres (21,000 hm²) are in adjacent basins (1966 determination).

AVERAGE DISCHARGE.--42 years, 3,096 ft³/s (87.68 m³/s) 2,243,000 acre-ft/yr (2,766 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft³/s (875 m³/s) Dec. 24, 1964 (gage height, 13.80 ft or 4.206 m); minimum, 71 ft³/s (2.01 m³/s) July 1, 1977 (gage height, 3.27 ft or 0.997 m); minimum daily, 150 ft³/s (4.25 m³/s) June 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,480 ft³/s (70.2 m³/s) Dec. 13 (gage height, 5.48 ft or 1.670 m); minimum, 71 ft³/s (2.01 m³/s) July 1 (gage height, 3.27 ft or 0.997 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.2	49	4.0	540
3.3	81	4.5	1,115
3.5	169	5.0	1,770
3.7	289	5.5	2,510

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2110	1510	1340	1570	1490	1010	561	231	689	164	333	733
2	2130	1470	1590	1760	1620	1080	582	276	571	244	318	722
3	2110	1450	1550	1800	1660	1100	511	270	824	251	283	530
4	2160	1440	1540	1830	1620	1040	492	370	789	379	283	445
5	2140	1410	1580	1840	1570	1000	412	379	530	412	270	412
6	2130	1310	1570	1740	1570	1000	420	347	379	379	289	362
7	2110	1270	1250	1730	1590	990	613	355	318	347	333	318
8	2100	1280	1200	1540	1580	1010	571	370	370	318	445	289
9	2110	1280	1190	1590	1590	1120	789	454	801	270	370	311
10	2100	1250	1530	1620	1670	1500	1070	502	530	289	347	333
11	2080	1270	1220	1730	1730	1190	870	634	437	304	318	370
12	2050	1270	1190	1760	1630	1050	428	694	511	296	296	355
13	2080	1250	1380	1950	1320	1090	362	540	603	251	270	347
14	2050	1250	1150	1910	1130	1070	492	379	464	231	270	370
15	2110	1250	1140	1940	1150	1000	571	395	379	208	263	362
16	1970	1270	1220	1800	1130	789	379	412	340	208	257	403
17	2020	1280	1280	1740	1030	847	325	370	420	214	283	454
18	1960	1290	1450	1740	918	862	311	387	412	219	283	521
19	1920	1500	1460	1760	906	930	283	387	318	197	257	789
20	1500	1500	1660	1760	966	906	244	370	289	186	270	1010
21	1490	1490	1870	1770	990	858	244	347	225	203	289	778
22	1450	1500	1840	1690	978	789	231	347	208	219	311	722
23	1490	1460	1840	1700	978	755	225	387	225	257	289	755
24	1420	1470	1840	1640	1120	835	219	540	203	318	296	801
25	1440	1470	1880	1570	1070	870	257	1170	197	540	412	990
26	1490	1450	1880	1530	966	858	289	966	208	603	711	954
27	1530	1440	1910	1510	894	766	263	1000	208	634	942	733
28	1450	1140	1920	1550	894	789	219	1340	159	445	942	634
29	1470	1130	1850	1500	---	778	203	1290	150	379	789	870
30	1580	1130	1700	1510	---	667	197	990	150	333	656	1070
31	1570	---	1660	1530	---	550	---	778	---	333	613	---
TOTAL	57340	40480	47680	52710	35760	29119	12633	17477	11907	9631	12288	17743
MEAN	1850	1349	1538	1700	1277	939	421	564	397	311	396	591
MAX	2160	1510	1920	1950	1730	1500	1070	1340	824	634	942	1070
MIN	1420	1130	1140	1500	894	550	197	231	150	164	257	289
AC-FT	113700	80290	94570	104600	70930	57760	25060	34670	23620	19100	24370	35190

CAL YR 1976 TOTAL 1218110 MEAN 3328 MAX 10600 MIN 1130 AC-FT 2416000
WTR YR 1977 TOTAL 344768 MEAN 945 MAX 2160 MIN 150 AC-FT 683800

13251000 PAYETTE RIVER NEAR PAYETTE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 22...	1335	1390	168	--	17.5	10.5	0	--	--
DEC 09...	1150	1160	214	7.3	11.0	3.0	2	54	0
JAN 13...	1330	1960	137	--	-1.5	.5	3	--	--
MAR 12...	1100	1130	180	--	11.0	5.0	--	--	--
APR 08...	1420	652	201	--	26.5	22.0	1	--	--
20...	1240	259	156	--	28.5	15.0	0	--	--
MAY 05...	1230	400	283	8.6	16.5	13.5	3	91	0
JUN 24...	1500	212	357	--	33.0	25.5	0	--	--
30...	1305	152	443	--	30.5	22.5	--	--	--
AUG 05...	1515	283	378	--	35.0	23.5	1	--	--
SEP 16...	1530	419	341	8.1	17.0	15.5	3	97	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 22...	--	--	--	--	--	--	--	--	--
DEC 09...	16	3.4	18	41	1.1	1.4	94	0	77
JAN 13...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
MAY 05...	26	6.4	33	43	1.5	2.7	150	0	123
JUN 24...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 16...	27	7.2	39	46	1.7	2.9	180	0	150

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 22...	--	--	--	--	--	--	--	--	--
DEC 09...	12	4.4	.6	17	121	.16	379	.31	.03
JAN 13...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
MAY 05...	20	6.3	.7	22	194	.26	210	.79	.14
JUN 24...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 16...	27	7.6	.7	27	231	.31	261	.85	.15

13251300 WEST BRANCH WEISER RIVER NEAR TAMARACK, ID

LOCATION.--Lat 45°01'14", long 116°26'06", in SE¼SE¼ sec.34, T.20 N., R.1 W., Adams County, Hydrologic Unit 17050124, Payette National Forest, on left bank at Price Valley guard station, 0.1 mi (0.2 km) upstream from East Branch Weiser River, and 5.2 mi (8.4 km) northwest of Tamarack.

DRAINAGE AREA.--3.96 mi² (10.26 km²). Mean altitude, 4,900 ft (1,490 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1959 to September 1977 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,200 ft or 1,280 m (from topographic map).

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 5.19 ft³/s (0.147 m³/s), 17.80 in/yr (452 mm/yr), 3,760 acre-ft/yr (4.64 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87 ft³/s (2.46 m³/s) May 4, 1971 (gage height, 4.56 ft or 1.390 m); maximum gage height, 6.73 ft (2.051 m) about Jan. 17, 1974 (ice jam); minimum daily discharge, 0.4 ft³/s (0.01 m³/s) Nov. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.37 ft³/s (0.10 m³/s) June 7 (gage height, 2.33 ft or 0.710 m); minimum, 0.38 ft³/s (0.01 m³/s) Aug. 18, 20 (gage height, 2.04 ft or 0.622 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27-30, Dec. 5-7, 19-22, 31, Jan. 1, 5-7)

2.03	0.38	2.2	1.3
2.05	.46	2.3	2.3
2.1	.7	2.4	4.0

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	.99	.87	.79	1.1	1.3	.87	2.0	1.4	.75	.50	.64
2	1.0	1.0	.87	.81	1.1	1.3	.87	2.0	1.4	.75	.50	.59
3	1.0	.99	.87	.87	1.1	1.3	.87	2.1	1.3	.70	.54	.59
4	.99	.99	.99	.87	1.0	1.3	1.2	2.0	1.3	.75	.54	.54
5	.99	.99	.96	.84	1.0	1.3	1.4	1.9	1.2	.70	.54	.54
6	.99	.99	.90	.74	1.0	1.4	1.5	2.0	1.1	.64	.59	.54
7	.99	.99	.98	.74	1.0	1.5	1.9	1.9	1.3	.64	.54	.54
8	.99	.99	.99	.74	1.0	1.5	2.4	1.8	1.9	.59	.59	.50
9	.99	.99	.99	.84	1.0	2.2	2.6	1.7	1.3	.59	.59	.54
10	.99	.99	.93	.88	1.0	2.0	2.3	2.3	1.3	.59	.54	.54
11	.99	.99	.93	1.0	1.1	1.8	2.3	2.7	1.3	.59	.54	.54
12	1.0	.99	.81	1.0	1.1	1.5	2.4	2.3	1.2	.59	.50	.54
13	1.0	1.0	.87	1.2	1.1	1.3	2.4	2.2	1.1	.59	.50	.54
14	1.0	1.0	.93	1.2	1.2	1.2	2.3	2.1	1.1	.59	.46	.59
15	1.0	.99	.93	1.2	1.2	1.1	2.2	2.0	1.0	.59	.50	.59
16	1.0	1.0	.99	1.2	1.2	1.0	2.2	1.9	1.0	.54	.46	.81
17	1.0	1.0	.93	1.1	1.3	.90	2.2	1.9	.99	.54	.46	.87
18	1.0	1.0	.70	1.1	1.3	.90	2.2	2.0	.93	.54	.46	.70
19	1.0	1.0	.75	1.1	1.4	.90	2.1	1.9	1.0	.59	.46	.75
20	1.0	1.0	.77	1.1	1.5	.90	2.0	1.7	1.0	.59	.46	.81
21	1.0	1.0	.78	1.0	1.5	.90	1.9	1.6	.93	.54	.50	.81
22	.99	1.0	.80	1.0	1.5	.90	1.9	1.6	.87	.54	.50	.75
23	.99	1.0	.81	1.0	1.4	.90	2.0	1.6	.93	.54	.46	.70
24	.99	1.0	.87	1.0	1.3	.90	2.1	1.6	.87	.70	.64	.70
25	1.0	1.0	.87	1.0	1.2	.90	2.1	1.6	.81	.70	.70	.75
26	1.0	.99	.87	1.0	1.2	.90	2.1	1.8	.75	.64	.70	.81
27	.99	.90	.87	1.0	1.2	.90	2.0	1.9	.75	.59	.70	.75
28	.99	.84	.75	1.0	1.2	.90	1.9	1.7	.75	.54	.64	.87
29	.93	.90	.75	1.0	---	.88	2.0	1.6	.75	.50	.64	1.3
30	.93	.92	.70	1.0	---	.88	1.9	1.6	.75	.54	.70	.87
31	.93	---	.75	1.0	---	.87	---	1.5	---	.50	.64	---
TOTAL	30.65	29.43	26.78	30.32	33.2	36.43	58.11	58.5	32.28	18.78	17.09	20.61
MEAN	.99	.98	.86	.98	1.19	1.18	1.94	1.89	1.08	.61	.55	.69
MAX	1.0	1.0	.99	1.2	1.5	2.2	2.6	2.7	1.9	.75	.70	1.3
MIN	.93	.84	.70	.74	1.0	.87	.87	1.5	.75	.50	.46	.50
CFSM	.25	.25	.22	.25	.30	.30	.49	.48	.27	.15	.14	.17
IN.	.29	.28	.25	.28	.31	.34	.55	.55	.30	.18	.16	.19
AC-FT	61	58	53	60	66	72	115	116	64	37	34	41

CAL YR 1976 TOTAL 1668.16 MEAN 4.56 MAX 37 MIN .70 CFSM 1.15 IN 15.67 AC-FT 3310
WTR YR 1977 TOTAL 392.18 MEAN 1.07 MAX 2.7 MIN .46 CFSM .27 IN 3.68 AC-FT 778

NOTE.--No gage-height record Jan. 8 to Mar. 30.

13251300 WEST BRANCH WEISER RIVER NEAR TAMARACK, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years August 1959 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1959 to September 1976 (discontinued).
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 17.0°C July 20, 1960, Aug. 12, 1963, July 31, 1966; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 21...	1240	.97	125	--	20.5	1.5	0	--	--
DEC 07...	1645	1.0	149	6.9	7.0	.5	2	51	0
JAN 12...	1043	1.3	120	--	-3.5	.5	71	--	--
MAR 09...	1240	2.3	100	--	12.5	1.0	--	--	--
31...	1410	.86	--	--	4.0	1.5	--	--	--
MAY 11...	1535	2.6	95	8.0	14.5	8.5	1	39	0
JUN 22...	1450	1.0	117	--	28.5	15.0	1	--	--
AUG 03...	1500	.58	119	--	32.5	15.5	1	--	--
SEP 14...	1515	.62	121	7.7	24.0	9.5	1	--	--
29...	1450	2.0	108	7.8	15.0	8.5	51	46	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 21...	--	--	--	--	--	--	--	--	--
DEC 07...	13	4.5	4.9	17	.3	1.1	65	0	53
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
MAY 11...	10	3.4	4.0	18	.3	1.0	57	0	47
JUN 22...	--	--	--	--	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--	--	--
29...	12	3.9	4.8	18	.3	1.4	67	0	55

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 21...	--	--	--	--	--	--	--	--	--
DEC 07...	4.9	.5	.1	27	89	.12	.26	.13	.03
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
MAY 11...	2.1	.5	.1	27	76	.10	.53	.01	.02
JUN 22...	--	--	--	--	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--	--	--
29...	3.5	.7	.1	27	86	.12	.49	.00	.13

13258500 WEISER RIVER NEAR CAMBRIDGE, ID

LOCATION.--Lat 44°34'47", long 116°38'20", in SE¼NE¼ sec.1, T.14 N., R.3 W., Washington County, Hydrologic Unit 17050124, on left bank 100 ft (30.5 m) upstream from road bridge, 2.2 mi (3.5 km) northeast of Cambridge, 2.5 mi (4.0 km) upstream from Rush Creek, and at mile 48.7 (78.4 km).

DRAINAGE AREA.--605 mi² (1,567 km²). Mean altitude, 4,650 ft (1,420 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,647.00 ft (806.806 m) above mean sea level (levels by Bureau of Reclamation). Aug. 29, 1956, to Aug. 19, 1966, at datum 5.0 ft (1.52 m) higher, Aug. 20, 1966, to July 8, 1976, at datum 3.00 ft (0.914 m) higher. Apr. 23, 1939, to Dec. 21, 1955, at site 135 ft (41.1 m) downstream at different datum. Nonrecording gage at different datum, prior to Apr. 23, 1939, at site 135 ft (41.1 m) downstream and Dec. 22, 1955, to Aug. 28, 1956, at bridge 2.5 mi (4.0 km) downstream.

REMARKS.--Records good except those for January and June, which are fair. Flow regulated to some extent by Lost Valley Reservoir about 57 mi (92 km) upstream (capacity reported to be 11,000 acre-ft or 13.6 hm³) and other smaller reservoirs. Diversions above station for irrigation of about 12,200 acres or 4,940 hm² (1966 determination).

AVERAGE DISCHARGE.--38 years, 656 ft³/s (18.6 m³/s), 475,300 acre-ft/yr (586 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Dec. 22, 1955 (gage height, 13.9 ft or 4.24 m, from floodmark, site and datum then in use); minimum, 7.1 ft³/s (0.20 m³/s) Aug. 21-24, 1977 (gage height, 2.23 ft or 0.680 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 310 ft³/s (8.78 m³/s) May 11 (gage height, 4.53 ft (1.381 m), no peak above base of 3,300 ft³/s (93.5 m³/s); minimum, 7.1 ft³/s (0.20 m³/s) Aug. 21-24 (gage height, 2.23 ft or 0.680 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.1	6.0	3.4	73
2.2	9.0	3.8	132
2.4	14	4.2	220
2.7	25	4.6	330
3.0	41		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	88	82	77	72	100	91	85	154	24	18	30
2	136	91	79	74	78	99	90	91	144	30	17	25
3	148	98	83	77	79	94	86	91	125	39	16	20
4	150	106	95	76	74	91	86	100	111	52	14	18
5	146	94	94	71	73	87	90	94	99	56	14	17
6	146	87	69	57	77	86	121	87	81	57	12	16
7	140	81	88	81	73	91	170	91	56	54	12	15
8	138	79	88	64	73	102	152	94	73	51	11	11
9	136	78	94	67	74	107	182	95	86	49	11	13
10	134	78	82	64	81	174	169	163	78	48	11	14
11	126	78	81	64	83	117	148	271	79	54	9.8	13
12	125	77	65	74	88	106	152	215	79	53	7.7	13
13	121	73	70	81	91	103	178	170	71	50	7.7	13
14	114	70	72	87	95	96	155	163	69	48	7.7	13
15	102	77	75	87	98	91	130	142	64	47	7.7	14
16	87	82	83	87	96	90	148	134	60	44	7.4	19
17	73	81	77	87	94	[illegible]	148	142	54	41	7.4	31
18	69	83	66	85	99	90	130	142	50	39	7.4	39
19	68	88	61	84	102	90	121	142	44	34	7.4	33
20	70	87	59	82	100	91	111	130	45	36	7.4	33
21	76	86	61	82	108	87	106	119	47	33	7.1	58
22	74	83	78	82	114	88	108	112	45	33	7.1	54
23	75	85	83	81	105	91	125	144	43	34	7.1	49
24	75	82	82	73	99	99	140	209	39	35	7.4	47
25	82	86	86	73	92	98	142	180	37	51	7.7	65
26	91	75	91	77	91	92	146	163	36	47	18	61
27	91	44	91	75	89	92	123	234	32	47	25	54
28	87	43	79	73	88	94	106	222	32	44	20	49
29	87	53	70	64	---	91	98	190	30	38	19	71
30	90	69	73	57	---	87	86	178	26	30	23	132
31	90	---	71	64	---	86	---	165	---	20	28	---
TOTAL	3283	2382	2428	2327	2486	3062	3850	4572	1997	1318	383.0	1040
MEAN	106	79.4	78.3	75.1	88.8	98.8	128	147	66.6	42.5	12.4	34.7
MAX	150	106	95	87	114	174	182	271	154	57	28	132
MIN	68	43	59	57	72	86	86	85	26	20	7.1	11
AC-FT	6510	4720	4820	4620	4930	6070	7640	9070	3960	2610	760	2060

CAL YR 1976 TOTAL 213930.0 MEAN 585 MAX 3900 MIN 43 AC-FT 424300
WTR YR 1977 TOTAL 29128.0 MEAN 79.8 MAX 271 MIN 7.1 AC-FT 57780

13258500 WEISER RIVER NEAR CAMBRIDGE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT 21...	--	72	152	--	18.0	8.0	--	--	--
DEC 08...	1257	93	147	6.9	1.5	1.0	71	51	0
JAN 12...	1506	79	167	--	.0	1.5	2	--	--
MAR 11...	1120	130	143	--	11.5	4.5	--	--	--
APR 07...	1215	151	128	--	22.5	16.0	0	--	--
MAY 12...	1215	214	109	6.5	18.5	15.0	1	40	0
JUN 23...	1420	42	134	--	34.5	27.5	1	--	--
JUL 18...	1220	40	121	--	32.0	23.5	1	--	--
AUG 04...	1235	13	180	--	32.5	25.5	0	--	--
SEP 15...	1255	12	200	8.0	24.5	19.0	3	61	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 21...	--	--	--	--	--	--	--	--	--
DEC 08...	13	4.6	10	29	.6	1.4	66	0	54
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 11...	--	--	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--	--	--
MAY 12...	10	3.6	6.4	25	.4	1.7	57	0	47
JUN 23...	--	--	--	--	--	--	--	--	--
JUL 18...	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--
SEP 15...	16	5.2	19	39	1.1	2.3	81	0	66

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 21...	--	--	--	--	--	--	--	--	--
DEC 08...	9.2	2.1	.1	27	100	.14	25.1	.04	.04
JAN 12...	--	--	--	--	--	--	--	--	--
MAR 11...	--	--	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--	--	--
MAY 12...	5.8	1.4	.1	25	82	.11	47.4	.04	.06
JUN 23...	--	--	--	--	--	--	--	--	--
JUL 18...	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--
SEP 15...	20	9.6	.2	28	140	.19	4.69	.04	.04

13266000 WEISER RIVER NEAR WEISER, ID

LOCATION.--Lat 44°16'03", long 116°46'16", in NE¼SE¼SE¼ sec.23, T.11 N., R.4 W., Washington County, Hydrologic Unit 17050124, on right bank 0.25 mi (0.4 km) upstream from county road bridge, 2.0 mi (3.2 km) downstream from Crane Creek, 10 mi (16 km) east of Weiser, and at mile 14.9 (24.0 km).

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1890 to June 1891, December 1894 to October 1896, April to September 1897, March 1898 to November 1899, March 1900 to December 1904, October 1910 to December 1914, October 1952 to current year. Published as "at Weiser" prior to 1900.

REVISED RECORDS.--WSP 1347: 1895-1905, 1953(M).

GAGE.--Water-stage recorder. Altitude of gage is 2,206.14 ft or 672.431 m. Prior to October 1952, nonrecording gages at several sites downstream within 1.5 mi (2.4 km) of present site at various datums. October 1952 to January 1974, water-stage recorder 1,000 ft (300 m) upstream at different datum. January to October 1974, nonrecording gage at nearby sites and different datums.

REMARKS.--Records good. Flow slightly regulated since 1911 by Crane Creek Reservoir 14.3 mi (23.0 km) upstream (capacity about 51,700 acre-ft or 63.7 hm³) and other small reservoirs. Diversions above station for irrigation of about 30,400 acres or 12,300 hm² (1966 determination).

AVERAGE DISCHARGE.--34 years (1896, 1899, 1901-4, 1912-14, 1953-77), 1,139 ft³/s (32.26 m³/s), 825,200 acre-ft/yr (1,018 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,900 ft³/s (564 m³/s) Dec. 23, 1955 (gage height, 11.06 ft or 3.371 m); maximum gage height, 12.83 ft (3.911 m) Jan. 31, 1961 (ice jam); minimum observed, 14 ft³/s (0.40 m³/s) Aug. 7, 1911 (gage height, 2.80 ft or 0.853 m, site and datum then in use); minimum gage height, 1.45 ft (0.442 m) Nov. 29, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1932, reached a discharge of about 17,500 ft³/s (496 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum observed discharge, 344 ft³/s (9.74 m³/s) May 11 (gage height, 4.33 ft or 1.320 m, at datum about 5 ft higher); minimum discharge, 34 ft³/s (0.93 m³/s) Sept. 14, 15, 16, 22, 23 (gage height, 3.23 ft or 0.984 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 26 to Dec. 6, Dec. 9 to Feb. 20)

3.2	30	3.6	100
3.3	43	3.9	190
3.4	59	4.3	358
3.5	78		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	154	110	150	135	133	130	124	205	175	74	43
2	194	157	110	160	150	142	124	133	187	187	67	42
3	194	157	125	170	145	142	121	136	180	172	61	42
4	208	164	140	150	140	136	118	145	142	168	74	39
5	212	170	150	120	140	130	116	167	127	172	74	43
6	208	160	130	120	135	121	118	139	121	165	70	45
7	208	154	133	125	135	130	127	136	154	152	70	46
8	201	151	142	135	135	127	145	139	154	152	68	43
9	197	148	136	140	140	133	148	142	190	136	67	43
10	197	148	132	145	150	210	187	154	216	68	63	43
11	194	145	120	150	155	184	184	255	216	87	65	45
12	180	145	90	155	160	148	184	288	212	87	67	39
13	180	145	80	155	170	145	194	219	208	87	68	41
14	177	145	95	155	180	136	227	190	205	93	68	35
15	167	139	90	155	185	127	212	177	194	96	67	35
16	164	151	100	155	180	121	184	157	185	96	61	35
17	154	154	110	155	185	118	219	157	180	100	58	39
18	142	142	110	155	190	124	235	167	185	105	56	41
19	139	133	105	160	200	124	231	167	190	96	59	42
20	139	136	105	160	250	124	219	160	195	72	63	42
21	142	133	105	160	260	130	212	148	200	65	65	39
22	145	133	120	165	220	130	208	136	205	61	63	36
23	145	130	145	165	187	130	201	136	210	63	61	45
24	148	130	155	160	164	133	201	216	215	67	58	49
25	152	127	160	160	145	142	197	235	213	72	58	51
26	160	118	175	150	139	136	205	206	187	72	58	56
27	167	80	180	150	133	133	190	243	161	72	45	68
28	170	70	160	140	133	130	142	288	148	67	45	65
29	164	78	150	135	---	139	118	251	145	68	45	58
30	167	100	150	130	---	133	116	227	152	78	46	78
31	157	---	150	130	---	124	---	216	---	82	48	---
TOTAL	5369	4097	3953	4615	4641	4215	5213	5656	5482	3233	1912	1368
MEAN	173	137	128	149	166	136	174	182	183	104	61.7	45.6
MAX	212	170	180	170	260	210	235	288	216	187	74	78
MIN	139	70	80	120	133	118	116	124	121	61	45	35
AC-FT	10650	8130	7840	9150	9210	8360	10340	11220	10870	6410	3790	2710

CAL YR 1976 TOTAL 359463 MEAN 982 MAX 5630 MIN 70 AC-FT 713000
WTR YR 1977 TOTAL 49754 MEAN 136 MAX 288 MIN 35 AC-FT 98690

13266000 WEISER RIVER NEAR WEISER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 22...	1030	145	169	--	10.5	5.5	0	--	--	--
DEC 09...	0911	142	168	6.9	.0	.5	0	64	0	15
JAN 13...	1126	162	186	--	.0	.5	2	--	--	--
MAR 12...	1710	151	159	--	11.0	6.0	--	--	--	--
24...	0945	129	163	--	20.0	5.0	74	--	--	--
APR 08...	0915	152	170	--	18.5	15.0	0	--	--	--
MAY 13...	1015	228	122	--	20.0	16.0	0	53	0	13
JUN 24...	1230	214	142	--	32.5	21.5	0	--	--	--
JUL 18...	1620	115	152	--	33.5	26.5	1	--	--	--
AUG 05...	1135	73	172	--	32.5	22.0	1	--	--	--
SEP 16...	1015	34	199	7.8	11.5	14.5	3	71	0	17

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 22...	--	--	--	--	--	--	--	--	--
DEC 09...	6.4	11	26	.6	2.3	84	0	69	9.5
JAN 13...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--	--
MAY 13...	5.0	8.1	24	.5	2.6	76	0	62	5.8
JUN 24...	--	--	--	--	--	--	--	--	--
JUL 18...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 16...	7.0	13	27	.7	5.3	110	0	90	9.4

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 22...	--	--	--	--	--	--	--	--	--
DEC 09...	2.6	.1	28	116	.16	44.5	.04	.04	--
JAN 13...	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--	--
MAY 13...	2.0	.1	24	98	.13	60.3	.01	.09	19
JUN 24...	--	--	--	--	--	--	--	--	--
JUL 18...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 16...	3.8	.2	37	149	.20	13.9	.39	.43	--

13269000 SNAKE RIVER AT WEISER, ID

LOCATION.--Lat 44°14'44", long 116°58'48", in NW¼SE¼ sec.31, T.11 N., R.5 W., Washington County, Hydrologic Unit 17050124, on right bank at upstream side of U.S. Highway 30N bridge at Weiser, 0.7 mi (1.1 km) downstream from Weiser River, and at mile 351.3 (565.2 km).

DRAINAGE AREA.--69,200 mi² (179,230 km²), approximately. Mean altitude, 5,400 ft (1,646 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to current year. Fragmentary gage-height record obtained by U.S. Weather Bureau since 1895. Monthly discharge only for October 1910, published in WSP 1317.

REVISED RECORDS.--WSP 1317: 1918. WSP 1567: 1910(M). WDR ID-76-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 2,086.64 ft (636.008 m) above mean sea level. Prior to Oct. 1, 1914, nonrecording gage 0.2 mi (0.3 km) downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, nonrecording gage, and Oct. 12, 1933, to Apr. 13, 1964, water-stage recorder, at site 0.3 mi (0.5 km) upstream at same datum.

REMARKS.--Records good. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 3,650,000 acres (1,477,200 hm²) of which about 742,000 acres (300,300 hm²) are by withdrawals from ground water. In addition, approximately 7,300 acres (2,954 hm²) are irrigated below station by diversion from Weiser River (1966 determination).

AVERAGE DISCHARGE.--67 years, 18,150 ft³/s (514 m³/s), 13,150,000 acre-ft/yr (16,200 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,500 ft³/s (2,390 m³/s) Apr. 29, 1952 (gage height, 14.67 ft or 4.471 m, site and datum then in use); minimum observed, 4,570 ft³/s (129 m³/s) July 1, 1977 (gage height, 1.32 ft or 0.402 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 3, 1910, reached a stage of 17.1 ft (5.21 m) at site and datum 0.3 mi (0.5 km) upstream, from reading on old U.S. Weather Bureau gage (discharge, 120,000 ft³/s or 3,398 m³/s). Flood in June 1894 was considerably higher.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,300 ft³/s (603 m³/s) Dec. 5 (gage height, 4.93 ft or 1.503 m); minimum, 4,570 ft³/s (129 m³/s) July 1 (gage height, 1.32 ft or 0.402 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 26 to Sept. 30)

1.4	4,500	3.00	11,200
1.7	5,640	4.00	16,100
2.0	6,850	5.00	21,400
2.50	8,960		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15900	15600	17400	14800	14800	11900	10600	5880	8960	4690	6650	8700
2	15500	15600	17700	15000	15100	12100	9010	6200	8400	4870	6650	8620
3	15900	15600	16900	15600	15300	12700	9400	6400	8230	5100	6440	8490
4	15200	16500	18400	15800	14500	12300	9720	6610	7390	5500	6610	8490
5	16300	15700	20600	15100	14500	13300	10100	7140	6690	6000	6810	8270
6	16300	15200	20200	15300	14500	13000	9450	7350	6400	6240	7060	8020
7	16700	15600	20100	15200	13900	13200	9890	8230	6160	6480	7140	7300
8	17000	15300	18700	14700	14000	13500	8270	7690	6440	6400	7310	7810
9	18300	14700	18500	14300	14000	12700	8400	8020	7930	6160	7140	7810
10	17400	15500	18400	14700	14000	14100	7930	8360	7140	6240	7060	7600
11	16900	15700	18400	16700	14200	13600	7220	8960	6940	6160	7140	7890
12	17600	15600	17100	18900	13800	13500	7510	8920	8270	6060	7100	8190
13	17700	14700	17100	17600	13400	13200	7390	8400	9050	5880	7100	7850
14	18900	14600	16600	15800	14100	13000	7390	8100	6920	5760	7100	7760
15	19600	15000	15800	14800	13700	12000	7430	8020	8920	5560	6930	7760
16	18400	15900	16000	14100	14000	13000	7430	7160	8830	5220	6890	7760
17	18100	15400	16400	13900	13700	13000	6890	7390	8530	5250	6770	7850
18	17400	16200	14600	13900	13300	12000	7430	7060	8360	5370	6550	8140
19	17500	15500	15400	14000	13300	11800	7640	7100	8020	5450	6160	8660
20	17100	15700	15800	14200	13400	11600	7510	7100	7640	5370	6000	9220
21	16500	16100	15600	15200	12500	10600	7180	7220	6920	5240	6160	8960
22	16200	15800	16100	14700	11500	9450	7060	7430	6400	5220	6360	9490
23	15800	15700	15500	14500	11600	9810	7100	7810	6240	5370	6080	9540
24	15300	15900	15200	14500	12500	11700	7100	8020	6160	5640	6090	9720
25	15500	16600	15000	14400	12200	11700	7100	8530	5840	6080	6690	10400
26	15400	16100	15100	14400	12100	11100	7140	8740	5800	6730	7340	10600
27	15300	15400	16000	14700	11500	10800	6770	11000	5640	7390	7810	10000
28	15300	15500	15500	15500	11800	10200	5960	10900	5290	7350	9000	10100
29	15300	17700	15200	14900	---	9320	6160	10600	4910	7510	9180	10400
30	15400	17500	15800	14800	---	11600	5640	10200	4570	7100	8960	10600
31	15700	---	15200	14900	---	10200	---	9400	---	6810	8750	---
TOTAL	515400	471900	520300	466700	377200	371960	234360	251240	215050	184330	219370	262000
MEAN	16630	15730	16780	15050	13470	12000	7812	8105	7168	5946	7076	8733
MAX	19600	17700	20600	18900	15300	14100	10600	11000	9050	7510	9180	10600
MIN	15200	14600	14600	13900	11500	9320	5640	5880	4570	4690	6000	7300
AC-FT	1022000	936000	1032000	925700	748200	737800	464900	498300	426600	365600	435100	519700

CAL YR 1976 TOTAL 8328500 MEAN 22760 MAX 52200 MIN 9260 AC-FT 16520000
WTR YR 1977 TOTAL 4089830 MEAN 11210 MAX 20600 MIN 4570 AC-FT 8112000

13269000 SNAKE RIVER AT WEISER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1967 to current year.
INSTRUMENTATION.--Temperature recorder since June 1969.
REMARKS.--No temperature record Apr. 11-29, Aug. 24 to Sept. 19 due to equipment malfunction.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C July 25-28, 1975, July 21, 1977; minimum, 0.0°C on several days during December, January, and February of most years.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.5°C July 21; minimum, 0.0°C on several days in January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
29...	1100	15400	482	8.8	6.0	8.5	7	5.8	53	21	235	--
DEC												
02...	1300	19000	507	8.6	11.5	--	4	12.2	102	--	396	200
20...	1115	15800	498	8.9	-1.0	--	5	12.3	92	10	300	--
JAN												
27...	1230	14700	479	8.8	-4.0	2.0	2	13.0	102	15	50	--
FEB												
15...	1115	14200	450	9.0	9.5	--	6	13.4	117	9	71	190
MAR												
24...	1300	12000	466	8.7	13.5	--	5	10.6	122	24	70	--
APR												
28...	1130	6120	469	9.0	24.5	8.0	9	9.7	68	32	B325	--
MAY												
26...	1300	8890	479	9.0	18.0	15.5	10	8.2	86	10	300	160
JUN												
30...	1130	4870	544	8.7	26.5	21.5	15	9.8	118	15	480	--
JUL												
26...	1000	7240	520	8.6	26.5	23.0	35	--	--	30	--	--
AUG												
23...	1500	6260	572	8.8	33.0	24.0	30	12.1	154	39	B690	--
SEP												
28...	1230	10500	563	8.2	20.0	17.0	6	--	--	14	90	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT												
29...	--	--	--	--	--	--	--	180	29	196	--	--
DEC												
02...	16	47	19	36	28	1.1	4.6	*200	12	184	56	30
20...	--	--	--	--	--	--	--	190	17	184	--	--
JAN												
27...	--	--	--	--	--	--	--	240	24	270	--	--
FEB												
15...	10	48	18	34	27	1.1	4.7	200	12	184	55	26
MAR												
24...	--	--	--	--	--	--	--	200	10	181	--	--
APR												
28...	--	--	--	--	--	--	--	150	24	163	--	--
MAY												
26...	0	36	16	41	36	1.4	5.0	150	24	163	61	22
JUN												
30...	--	--	--	--	--	--	--	180	16	174	--	--
JUL												
26...	--	--	--	--	--	--	--	200	12	184	--	--
AUG												
23...	--	--	--	--	--	--	--	200	17	192	--	--
SEP												
28...	--	--	--	--	--	--	--	--	--	--	--	--

* Not a field determination.
B Results based on count outside of ideal colony count range.

13269000 SNAKE RIVER AT WEISER, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT												
29...	24	323	.44	13400	17	1.1	.06	1.1	1.2	2.3	10	.08
DEC												
02...	24	324	.44	16600	0	.94	.01	.34	.35	1.3	5.9	.04
20...	24	313	.43	13400	0	1.1	.00	.89	.89	2.0	8.8	.04
JAN												
27...	25	323	.44	12800	1	1.3	.02	.18	.20	1.5	6.6	.07
FEB												
15...	25	316	.43	12100	13	1.1	.02	.41	.43	1.5	6.8	.07
MAR												
24...	22	310	.42	10000	6	.71	.06	.01	.07	.78	3.5	.08
APR												
28...	19	301	.41	4970	24	.19	.01	.72	.73	.92	4.1	.08
MAY												
26...	19	299	.41	7180	19	.52	.09	1.0	1.1	1.6	7.2	.08
JUN												
30...	21	326	.44	4290	29	.19	.11	.54	.65	.84	3.7	.09
JUL												
26...	29	345	.47	6740	76	.31	.12	.73	.85	1.2	5.1	.20
AUG												
23...	29	351	.48	5930	78	.51	.10	.72	.82	1.3	5.9	.13
SEP												
28...	29	355	.48	10100	24	.94	.10	.57	.67	1.6	7.1	.08

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT											
29...	7	<10	0	10	330	100	.0	1	20	2.1	0
DEC											
02...	6	<10	10	<10	130	<100	.0	1	0	2.4	0
20...	2	<10	0	9	230	<100	1.3	1	20	2.5	0
JAN											
27...	5	<10	0	<10	110	<100	.0	1	10	1.9	0
FEB											
15...	4	<10	0	<10	300	<100	.0	1	0	2.2	0
MAR											
24...	5	<10	0	<10	210	<100	.2	1	0	2.1	0
APR											
28...	6	<10	0	<10	430	100	.0	2	10	3.9	0
MAY											
26...	6	<10	10	<10	550	<100	.1	0	20	4.1	0
JUN											
30...	8	<10	10	<10	80	<100	.0	2	4	3.6	0
JUL											
26...	--	--	--	--	--	--	--	--	--	6.3	--
AUG											
23...	4	<10	20	10	1400	<100	.2	0	10	--	0
SEP											
28...	8	<10	0	<10	290	<100	.0	0	10	2.6	0

13269000 SNAKE RIVER AT WEISER, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	16.5	9.0	8.0	3.5	3.0	1.0	1.0	2.0	1.5	6.0	4.0
2	17.5	15.5	10.5	9.0	3.5	2.0	1.0	1.0	2.0	1.5	5.5	3.5
3	15.5	14.0	10.5	9.5	2.5	2.0	1.0	1.0	2.0	2.0	5.5	3.5
4	15.0	13.0	10.0	9.0	3.5	2.5	1.0	1.0	2.0	2.0	6.5	3.5
5	14.0	12.5	9.5	8.5	3.5	3.0	1.0	1.0	2.0	1.5	7.0	4.5
6	15.0	12.5	9.5	8.5	3.0	2.5	.5	.0	1.5	1.5	7.0	5.0
7	15.0	13.0	10.0	8.5	3.0	3.0	.0	.0	1.5	1.5	7.0	6.5
8	15.0	13.0	9.5	8.5	3.0	2.5	.0	.0	1.5	1.5	8.0	6.0
9	15.0	13.5	9.0	8.0	3.0	2.5	.0	.0	2.5	1.5	8.0	7.0
10	15.5	14.0	9.0	7.5	3.0	2.5	.0	.0	2.5	2.0	7.5	5.0
11	15.5	14.0	8.5	7.5	3.0	2.0	.0	.0	2.5	2.5	6.0	3.5
12	15.0	13.5	8.0	7.0	2.5	1.5	.0	.0	3.0	2.5	5.5	4.5
13	14.5	13.0	7.0	5.5	2.5	1.5	.0	.0	3.0	2.5	6.0	3.5
14	14.0	13.0	5.5	4.5	2.0	1.5	.5	.0	4.0	3.0	5.5	3.5
15	14.0	13.0	6.0	4.5	2.0	1.5	.5	.5	4.0	3.5	7.0	4.0
16	13.5	12.5	7.5	6.0	1.5	1.5	.5	.5	4.0	3.5	7.5	4.5
17	13.0	11.5	8.0	7.0	1.5	1.0	.5	.5	3.5	2.5	7.5	5.5
18	12.0	10.5	8.5	7.5	1.0	1.0	.5	.5	3.0	2.5	7.0	5.0
19	10.5	9.5	8.5	8.0	1.0	1.0	.5	.5	3.5	3.0	7.5	5.5
20	10.0	8.5	8.0	6.0	1.0	1.0	.5	.5	3.0	3.0	7.5	5.0
21	10.0	8.5	6.5	6.0	1.0	1.0	1.0	.5	3.0	2.5	8.0	5.5
22	10.0	8.5	6.0	5.5	1.0	1.0	1.0	1.0	2.5	2.5	10.0	6.0
23	10.0	8.5	5.5	5.0	1.0	1.0	1.5	1.0	3.0	2.0	8.5	7.5
24	9.5	8.5	5.0	4.5	1.0	1.0	1.5	1.5	3.5	2.5	8.5	6.0
25	9.5	9.5	5.0	4.5	1.5	1.0	1.5	1.5	3.0	2.5	9.0	5.5
26	10.0	8.5	4.5	2.5	1.5	1.5	1.5	1.5	4.0	2.0	9.0	6.5
27	9.5	8.0	3.0	2.0	2.0	1.5	2.0	1.5	5.0	3.0	8.5	7.0
28	9.0	7.5	2.5	2.0	2.0	1.5	2.0	1.5	6.5	4.5	7.0	6.5
29	9.0	8.0	3.5	2.5	1.5	1.0	1.5	1.5	---	---	7.0	5.0
30	9.5	8.0	3.5	2.5	1.0	1.0	1.5	1.5	---	---	8.5	5.5
31	9.0	8.0	---	---	1.0	1.0	1.5	1.5	---	---	8.0	6.5
MONTH	18.0	7.5	10.5	2.0	3.5	1.0	2.0	.0	6.5	1.5	10.0	3.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	7.0	18.0	16.5	22.5	19.0	24.5	23.0	26.0	23.0	---	---
2	9.5	7.0	18.0	15.5	21.0	17.0	25.5	21.5	27.0	24.0	---	---
3	10.5	8.0	16.5	14.5	21.0	18.0	23.5	21.5	27.5	24.0	---	---
4	12.5	9.0	15.0	13.5	23.0	19.0	22.0	20.0	27.5	24.5	---	---
5	14.0	11.0	15.0	12.5	24.5	20.5	22.5	19.0	26.0	24.0	---	---
6	15.5	12.0	13.5	12.0	26.0	22.5	22.0	18.5	26.0	23.0	---	---
7	16.5	13.0	15.5	12.5	27.0	23.5	23.5	19.0	23.5	22.5	---	---
8	16.5	13.5	15.0	13.0	26.5	24.0	24.5	20.5	24.5	21.5	---	---
9	15.0	12.5	15.5	12.5	24.0	21.5	23.5	21.0	25.5	21.5	---	---
10	14.5	11.0	15.0	13.5	22.5	21.0	23.5	20.0	26.0	22.5	---	---
11	---	---	16.5	13.0	22.0	20.5	24.5	20.5	26.5	23.0	---	---
12	---	---	17.5	14.5	23.0	19.5	25.5	22.0	26.5	23.0	---	---
13	---	---	19.5	15.5	23.0	21.0	24.0	20.0	27.0	23.0	---	---
14	---	---	18.5	15.5	23.0	20.0	25.0	21.0	26.5	24.5	---	---
15	---	---	17.0	14.5	23.5	20.0	26.0	22.0	26.5	23.5	---	---
16	---	---	15.0	13.5	24.5	21.0	27.0	23.5	27.0	24.0	---	---
17	---	---	14.5	12.5	24.0	21.0	26.5	23.5	26.5	24.0	---	---
18	---	---	14.0	12.0	25.0	21.5	26.5	23.5	27.0	24.0	---	---
19	---	---	15.5	12.5	26.0	22.5	27.0	23.5	27.5	24.5	---	---
20	---	---	18.0	14.0	24.5	22.5	27.5	24.0	27.5	24.5	16.0	15.5
21	---	---	19.0	15.5	25.0	21.5	28.5	25.0	27.0	25.0	16.5	14.5
22	---	---	19.5	16.5	25.5	22.0	28.0	25.0	26.5	24.0	16.0	14.0
23	---	---	18.5	17.0	26.5	23.0	27.5	24.0	24.5	23.0	15.0	14.0
24	---	---	18.0	16.0	26.5	23.0	25.5	24.0	---	---	15.5	14.0
25	---	---	18.5	14.5	27.0	23.5	26.0	22.5	---	---	15.5	14.5
26	---	---	17.0	15.5	27.0	23.5	26.5	23.0	---	---	16.5	14.5
27	---	---	17.0	14.0	25.5	23.0	27.0	24.0	---	---	17.0	15.5
28	---	---	18.0	14.0	26.0	22.0	27.0	24.5	---	---	17.5	16.0
29	---	---	19.5	15.5	25.5	22.5	24.5	21.5	---	---	17.0	16.0
30	19.0	17.5	19.5	16.0	25.5	21.0	25.0	21.5	---	---	16.0	14.5
31	---	---	22.0	17.0	---	---	26.0	22.5	---	---	---	---
MONTH	19.0	7.0	22.0	12.0	27.0	17.0	28.5	18.5	27.5	21.5	17.5	14.0
YEAR	28.5	.0										

13289700 BROWNLEE RESERVOIR AT BROWNLEE DAM, IDAHO-OREGON STATE LINE

LOCATION.--Lat 44°50'08", long 116°53'58", in SE¼SE¼ sec.2, T.17 N., R.5 W., Washington County, Hydrologic Unit 17050201, at Brownlee Dam on Snake River near Idaho end of dam, 1.1 mi (1.8 km) upstream from Wildhorse River, 3.5 mi (5.6 km) downstream from Brownlee Creek, 10.5 mi (16.9 km) east of Halfway, Oreg., and at mile 285.0 (458.6 km).

DRAINAGE AREA.--72,590 mi² (188,000 km²), approximately.

PERIOD OF RECORD.--May 1958 to current year. Published as "at Idaho-Oregon State line" 1958-59.

GAGE.--Remote registering water-stage recorder. Datum of gage is mean sea level, Idaho Power Co. datum. Prior to Feb. 2, 1959, nonrecording gage or levels to water surface at present site and datum.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began May 5, 1958. Dam was completed in fall of 1958. Normal pool elevation, 2,077 ft (633.1 m). Water is used for power generation.

COOPERATION.--Water-stage recorder graph and capacity table furnished by Idaho Power Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,454,000 acre-ft (1,790 hm³) Aug. 6, 1962 (elevation, 2,078.91 ft or 633.652 m); minimum since full capacity was attained June 23, 1959, 441,200 acre-ft (544 hm³) Apr. 25, 1971 (elevation, 1,975.20 ft or 602.041 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,430,000 acre-ft (1,760 hm³) Oct. 9 (elevation, 2,077.20 ft or 633.130 m); minimum, 1,116,000 acre-ft (1,380 hm³) Jan. 29 (elevation, 2,053.21 ft or 625.818 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,000.0	618,700	2,060.0	1,198,000
2,020.0	786,400	2,080.0	1,469,000
2,040.0	977,100		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1407000	1410000	1359000	1278000	1120000	1231000	1172000	1146000	1320000	1314000	1287000	1318000
2	1411000	1415000	1348000	1274000	1123000	1236000	1170000	1133000	1325000	1307000	1288000	1317000
3	1419000	1415000	1347000	1265000	1124000	1236000	1173000	1124000	1332000	1308000	1286000	1323000
4	1422000	1415000	1343000	1256000	1125000	1238000	1177000	1124000	1335000	1310000	1284000	1331000
5	1419000	1414000	1342000	1250000	1126000	1239000	1187000	1129000	1336000	1312000	1288000	1336000
6	1418000	1409000	1342000	1243000	1128000	1240000	1189000	1137000	1334000	1313000	1290000	1338000
7	1420000	1409000	1342000	1231000	1125000	1241000	1189000	1150000	1332000	1307000	1293000	1334000
8	1423000	1406000	1340000	1220000	1123000	1247000	1190000	1161000	1329000	1302000	1291000	1337000
9	1430000	1404000	1335000	1206000	1126000	1243000	1186000	1168000	1337000	1293000	1294000	1343000
10	1428000	1402000	1332000	1189000	1132000	1244000	1183000	1169000	1341000	1297000	1292000	1346000
11	1427000	1399000	1329000	1174000	1139000	1246000	1176000	1174000	1342000	1298000	1288000	1352000
12	1423000	1397000	1324000	1165000	1145000	1248000	1169000	1177000	1353000	1293000	1290000	1357000
13	1419000	1390000	1317000	1163000	1155000	1249000	1165000	1180000	1364000	1289000	1292000	1361000
14	1420000	1385000	1306000	1164000	1163000	1245000	1159000	1190000	1375000	1291000	1296000	1361000
15	1419000	1381000	1298000	1169000	1168000	1240000	1162000	1197000	1383000	1290000	1295000	1367000
16	1417000	1386000	1290000	1171000	1172000	1238000	1170000	1201000	1386000	1267000	1287000	1372000
17	1411000	1390000	1286000	1163000	1174000	1237000	1173000	1207000	1386000	1286000	1286000	1377000
18	1407000	1393000	1283000	1156000	1179000	1233000	1172000	1213000	1385000	1285000	1282000	1383000
19	1408000	1392000	1283000	1151000	1184000	1227000	1174000	1222000	1390000	1291000	1280000	1391000
20	1407000	1389000	1276000	1148000	1199000	1226000	1176000	1230000	1386000	1295000	1280000	1392000
21	1404000	1388000	1270000	1146000	1202000	1220000	1176000	1234000	1383000	1292000	1281000	1391000
22	1400000	1387000	1269000	1145000	1209000	1219000	1175000	1244000	1374000	1280000	1265000	1393000
23	1396000	1385000	1267000	1145000	1213000	1216000	1175000	1250000	1370000	1279000	1268000	1396000
24	1396000	1385000	1266000	1139000	1216000	1215000	1177000	1256000	1363000	1282000	1269000	1404000
25	1396000	1388000	1272000	1132000	1217000	1214000	1175000	1261000	1356000	1278000	1269000	1410000
26	1398000	1387000	1286000	1129000	1220000	1214000	1171000	1269000	1353000	1277000	1295000	1418000
27	1397000	1378000	1292000	1122000	1224000	1208000	1165000	1275000	1347000	1276000	1304000	1417000
28	1394000	1368000	1292000	1118000	1226000	1193000	1160000	1286000	1341000	1277000	1313000	1414000
29	1396000	1366000	1289000	1116000	---	1178000	1151000	1298000	1332000	1284000	1324000	1416000
30	1401000	1363000	1286000	1121000	---	1175000	1144000	1312000	1323000	1287000	1324000	1422000
31	1409000	---	1282000	1119000	---	1167000	---	1318000	---	1287000	1322000	---
MAX	1430000	1415000	1359000	1278000	1226000	1249000	1190000	1318000	1390000	1314000	1324000	1422000
MIN	1394000	1363000	1266000	1116000	1120000	1167000	1144000	1124000	1320000	1276000	1280000	1317000
(†)	2075.75	2072.38	2066.42	2053.48	2062.19	2057.52	2055.59	2069.13	2069.49	2066.80	2069.42	2076.68
(‡)	+1000	-46000	-81000	-163000	+107000	-59000	-23000	+174000	+5000	-36000	+35000	+100000

CAL YR 1976........... ‡ -125000
WTR YR 1977........... ‡ +14000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

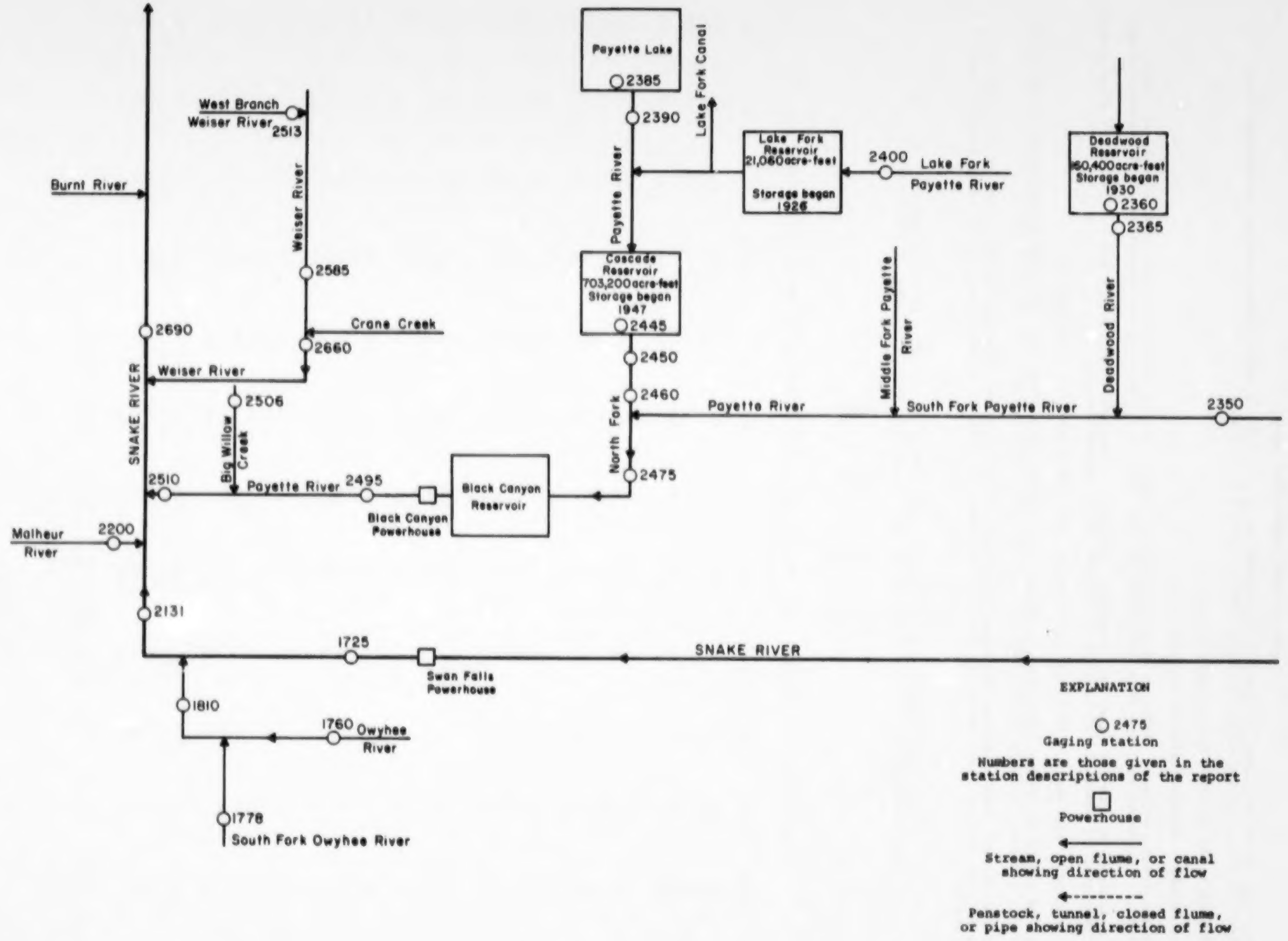
SNAKE RIVER
Burnt River
West Branch Weiser River 2513
Weiser River
2585
Crane Creek
2660
2690
Weiser River
2506
Big Willow Creek
2510
Payette River 2495
Black Canyon Powerhouse
Black Canyon Reservoir
Malheur River
2200
2131
Payette Lake
2385
2390
Lake Fork Canal
Lake Fork Reservoir 21,060 acre-feet Storage began 1926
2400 Lake Fork Payette River
Payette River
Cascade Reservoir 703,200 acre-feet Storage began 1947
2445
2450
2460
North Fork
2475
Deadwood Reservoir 160,400 acre-feet Storage began 1930
2360
2365
Deadwood River
Middle Fork Payette River
Payette River
South Fork Payette River
2350
1725
Swan Falls Powerhouse
SNAKE RIVER
1810
1760 Owyhee River
1778
South Fork Owyhee River
EXPLANATION
2475
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow

FIGURE 18.--Gaging stations in Payette and Weiser River basins.

13290190 PINE CREEK NEAR OXBOW, ID

LOCATION.--Lat 44°57'13", long 116°52'21", in NE¼SW¼ sec.17, T.7 S., R.48 E., Baker County, Hydrologic Unit 17050201, 1.8 mi (2.9 km) south of Oxbow, and at mile 1.9 (3.1 km).

DRAINAGE AREA.--230 mi² (596 km²), approximately.

PERIOD OF RECORD.--November 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,850.48 ft (564.026 m) above mean sea level (levels by Idaho Power Co.). Prior to Aug. 24, 1967, nonrecording gage at site 1.7 mi (2.7 km) downstream at different datum.

REMARKS.--Records good except those for December, January, and September, which are fair. Diversions above station for irrigation of about 19,000 acres or 7,690 hm² (1966 determination).

AVERAGE DISCHARGE.--10 years, 376 ft³/s (10.65 m³/s), 272,400 acre-ft/yr (336 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft³/s (201 m³/s) Feb. 21, 1968 (gage height, 9.82 ft or 2.993 m); minimum, 10 ft³/s (0.28 m³/s) Aug. 17-24, 1977 (gage height, 2.12 ft or 0.646 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 280 ft³/s (7.93 m³/s) May 27 (gage height, 3.68 ft or 1.122 m), no peak above base of 1,600 ft³/s (45.3 m³/s); minimum, 10 ft³/s (0.28 m³/s) Aug. 17-24 (gage height, 2.12 ft or 0.646 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 19-25, Dec. 29 to Jan. 4, Jan. 6-18)

2.1	10	3.0	95
2.2	14	3.3	161
2.4	26	3.6	252
2.7	53		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	68	63	60	61	88	69	52	153	23	15	20
2	61	69	63	59	61	77	66	55	175	25	14	19
3	65	69	61	60	63	76	63	59	121	25	15	18
4	63	68	65	54	64	80	64	63	106	25	14	17
5	63	68	64	43	66	74	66	52	106	28	13	16
6	66	66	58	45	63	74	72	51	95	25	14	15
7	61	65	66	55	64	74	79	51	82	23	15	14
8	58	65	66	54	63	74	90	50	74	22	14	11
9	55	65	66	60	58	85	83	52	80	21	14	12
10	55	64	63	56	57	77	76	77	68	23	12	13
11	52	63	63	60	55	69	72	80	65	23	12	12
12	53	63	58	62	54	72	66	64	74	21	12	12
13	56	63	60	62	60	69	70	64	74	20	11	12
14	55	61	57	62	63	64	64	63	83	20	11	12
15	55	68	55	62	61	63	60	60	70	19	13	13
16	56	70	63	62	66	65	63	69	63	18	11	17
17	53	70	55	62	66	66	64	72	59	18	10	28
18	51	70	56	62	65	65	60	80	52	19	10	34
19	52	69	56	60	68	68	54	88	49	21	11	29
20	56	69	52	57	68	66	52	82	57	18	11	23
21	55	69	56	57	77	64	53	77	50	17	11	39
22	58	69	58	57	90	63	54	74	44	17	11	36
23	60	68	60	57	77	65	59	88	35	16	11	34
24	61	66	58	59	72	66	69	153	31	18	12	32
25	68	68	60	60	68	61	76	134	28	23	20	45
26	66	63	59	58	70	60	64	153	27	24	23	41
27	65	50	59	55	69	60	55	242	26	21	20	37
28	66	57	56	55	77	61	54	204	25	19	18	33
29	66	63	56	55	---	66	58	189	24	17	19	90
30	66	66	60	55	---	63	53	167	23	16	21	68
31	68	---	58	59	---	63	---	143	---	16	21	---
TOTAL	1823	1972	1847	1784	1846	2138	1948	2914	2019	640	439	802
MEAN	58.8	65.7	59.6	57.5	65.9	69.0	64.9	94.0	67.3	20.6	14.2	26.7
MAX	68	70	66	62	90	88	90	242	175	28	23	90
MIN	51	50	52	43	55	60	52	50	23	16	10	11
AC-FT	3620	3910	3660	3540	3660	4240	3860	5780	4000	1270	871	1590

CAL YR 1976 TOTAL 118800 MEAN 325 MAX 1660 MIN 50 AC-FT 235600
WTR YR 1977 TOTAL 20172 MEAN 55.3 MAX 242 MIN 10 AC-FT 40010

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE

LOCATION.--Lat 45°15'05", long 116°41'50", in SE¼SE¼ sec.33, T.3 S., R.49 E., unsurveyed (Willamette meridian), Wallowa County, Hydrologic Unit 17050201, Wallowa-Whitman National Forest, on left bank 0.2 mi (0.3 km) upstream from Hells Canyon Creek, 0.4 mi (0.6 km) downstream from Deep Creek, 0.6 mi (1.0 km) downstream from Hells Canyon Dam, 15.5 mi (24.9 km) northeast of Homestead, Oreg., and at mile 247.0 (397.4 km).

DRAINAGE AREA.--73,300 mi² (190,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,400.00 ft (426.720 m) above mean sea level (levels by Idaho Power Co.).

REMARKS.--Records good. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet (12,300 hm³), the most effective of which is Brownlee Reservoir 38 mi (6 km) upstream (see sta 13289700). Diurnal fluctuations caused by Hells Canyon powerplant. Diversions above station for irrigation of about 3,820,000 acres (1,550,000 hm²) of which 742,000 acres (300,000 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--12 years, 21,900 ft³/s (620.2 m³/s), 15,870,000 acre-ft/yr (19,600 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,800 ft³/s (2,150 m³/s) Apr. 15, 1971 (gage height, 81.55 ft or 24.856 m); minimum, 1,580 ft³/s (44.7 m³/s) Mar. 19, 1967 (gage height, 59.9 ft or 18.26 m); minimum daily, 4,360 ft³/s (123 m³/s) May 8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,600 ft³/s (838 m³/s) Dec. 14 (gage height, 71.81 ft or 21.888 m); minimum, 4,250 ft³/s (120 m³/s) May 8 (gage height, 62.20 ft or 18.959 m); minimum daily discharge, 4,360 ft³/s (123 m³/s) May 8.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

62.0	3,800	67.0	13,700
63.0	5,300	70.0	22,700
65.0	9.000		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17500	15700	19600	16700	14200	11100	11700	5450	6960	8810	6270	7130
2	13400	15400	20200	20300	14400	11100	9030	13100	6980	8940	6100	5730
3	11900	15600	19500	21700	14300	11400	10200	10900	5780	8940	7850	5700
4	16700	17100	21200	18300	15400	12300	8940	8310	5760	8850	7140	5650
5	16100	15900	20300	17900	14000	14200	8900	8110	6200	5900	5700	5680
6	18300	19300	22100	19900	14500	13300	8520	6300	11400	7110	5730	8480
7	15800	15700	20900	19100	15100	13500	7930	4530	9580	7010	5780	7800
8	16000	17400	19500	21200	17000	12200	7780	4360	9250	6770	5780	6870
9	15600	16500	20300	18000	12800	14300	7850	4430	7310	6270	6590	5310
10	18500	16300	21800	21400	13500	15200	9220	4710	5760	5950	7990	5380
11	19300	17100	19900	19700	11100	12700	12300	7220	5710	6050	7180	5220
12	20100	18300	21000	20200	10600	13100	11300	6850	5710	7640	6150	5300
13	20100	17300	21400	15600	9540	13700	9760	5500	5660	8350	5880	6150
14	20000	18000	22000	15600	10600	16000	10100	5710	5650	7290	5780	7390
15	19800	17300	22400	15100	10300	15400	7280	5850	7010	5750	6750	6640
16	20900	15100	18300	15500	11100	15100	5730	5960	6960	5610	11800	5310
17	21500	13600	18100	18700	13300	13700	5730	6320	5780	5730	7870	5360
18	21400	14500	15200	19300	13400	15100	6440	6080	5810	6750	7160	5350
19	19000	15700	16100	17300	9270	15700	5660	6900	5830	5730	5730	5330
20	17200	16200	19500	16900	8830	12400	5630	5710	9450	6940	5730	6440
21	17000	16600	18700	16500	9650	14000	7520	5730	9960	7090	5780	8290
22	20400	16900	18600	17100	10900	11600	7290	5680	9510	8190	5810	8310
23	17700	17000	17000	14300	10200	10500	6450	5730	10100	8790	6520	7620
24	17500	16800	15400	17900	11000	12500	5630	5750	10700	6400	8030	8390
25	15000	14500	12000	17600	13400	12500	8850	6920	8940	5600	7430	8440
26	14100	18000	9900	19300	10900	12900	8900	7000	5830	5680	5730	8370
27	15800	22500	13400	16900	9850	14100	9960	5700	11200	7760	5750	8310
28	17400	21000	15700	18400	11800	18200	11600	5710	10500	7070	5800	8520
29	15200	20500	16100	15900	---	17000	10000	5700	9330	5560	5730	8920
30	12900	20000	17700	12500	---	14600	8390	5060	8740	5680	6540	9180
31	11900	---	18700	17000	---	15300	---	5060	---	5710	8110	---
TOTAL	534000	511800	572500	551800	340940	424700	254590	198440	233360	213920	206190	206570
MEAN	17230	17060	18470	17800	12180	13700	8486	6401	7779	6901	6651	6886
MAX	21500	22500	22400	21700	17000	18200	12300	13100	11400	8940	11800	9180
MIN	11900	13600	9900	12500	8830	10500	5630	4360	5650	5560	5700	5220
AC-FT	1059000	1015000	1136000	1094000	676300	842400	505000	393600	462900	424300	409000	409700

CAL YR 1976 TOTAL 9399390 MEAN 25680 MAX 58400 MIN 9710 AC-FT 18640000
WTR YR 1977 TOTAL 4248810 MEAN 11640 MAX 22500 MIN 4360 AC-FT 8428000

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
01...	1100	19100	434	8.0	21.0	19.0	3	5.9	66	<1	B13	150
28...	1400	19700	455	8.1	16.5	14.5	3	7.6	78	<1	B2	160
DEC												
01...	1230	21100	426	8.2	8.5	9.5	2	8.2	75	<1	B1	170
29...	1000	18700	479	8.5	-2.0	5.5	2	10.2	87	<1	B5	180
JAN												
26...	1200	25300	470	8.6	2.0	2.0	2	7.0	54	<1	29	180
FEB												
24...	1100	14400	433	8.3	11.0	3.5	2	13.0	103	<1	B6	180
MAR												
23...	1230	11700	471	8.2	17.0	5.0	2	6.0	49	<1	B17	180
APR												
27...	1015	9900	491	8.8	20.5	8.5	1	11.0	99	B2	31	180
MAY												
25...	1130	5780	483	8.7	19.0	12.0	1	9.2	98	B2	20	180
JUN												
29...	1230	9800	559	8.2	29.5	16.0	2	8.1	85	<1	B9	170
JUL												
27...	1015	8530	456	8.0	25.5	17.5	1	7.1	78	--	--	160
AUG												
24...	1120	5920	502	8.2	21.5	20.0	1	5.1	58	73	--	170
SEP												
29...	1320	9420	480	8.0	14.0	17.5	1	--	--	B1	209	160

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT												
01...	0	36	14	38	35	1.4	4.9	205	0	168	53	18
28...	0	38	16	39	34	1.3	5.1	210	0	172	55	19
DEC												
01...	9	40	17	37	31	1.2	4.7	*196	0	161	54	22
29...	0	42	19	37	30	1.2	4.8	200	10	181	56	21
JAN												
26...	0	45	17	34	28	1.1	4.3	150	62	226	55	27
FEB												
24...	8	45	17	34	28	1.1	4.4	210	0	172	54	24
MAR												
23...	4	46	17	33	27	1.1	4.5	220	0	180	53	23
APR												
27...	2	45	16	35	29	1.1	4.6	190	12	180	51	21
MAY												
25...	12	42	18	35	29	1.1	4.5	190	7	167	57	22
JUN												
29...	6	38	17	38	33	1.3	4.6	200	0	164	55	24
JUL												
27...	0	37	17	41	35	1.4	5.0	200	0	160	62	23
AUG												
24...	19	37	18	43	35	1.5	5.2	180	0	150	69	23
SEP												
29...	0	34	18	53	41	1.8	5.7	200	0	164	69	23

* Not a field determination.
B Results based on count outside of ideal colony count range.

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT												
01...	.5	22	282	288	.38	14500	.04	.28	.32	1.4	.11	3.0
28...	.6	18	294	294	.40	15600	1.0	.82	1.8	8.1	.06	--
DEC												
01...	.6	21	287	293	.39	16400	.94	.35	1.3	5.7	.06	--
29...	.6	26	321	315	.44	15800	1.0	.39	1.4	6.2	.05	2.1
JAN												
26...	.6	24	305	343	.41	20800	1.0	.04	1.0	4.6	.06	--
FEB												
24...	.7	25	312	308	.42	12100	.97	.33	1.3	5.8	.04	--
MAR												
23...	.7	24	306	310	.42	9670	.93	.23	1.2	5.1	.09	1.4
APR												
27...	.7	22	300	301	.41	8020	.76	.42	1.2	5.2	.03	--
MAY												
25...	.7	19	286	299	.39	4460	.59	1.7	2.3	10	.10	--
JUN												
29...	.7	15	284	291	.39	7520	.46	.19	.65	2.9	.02	1.7
JUL												
27...	.7	16	291	300	.40	6700	.46	.09	.55	2.4	.05	--
AUG												
24...	.7	17	303	302	.41	4840	.48	.18	.66	2.9	.05	--
SEP												
29...	.7	21	309	323	.42	7860	.68	--	--	--	.12	2.3

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS-PENDED COBALT (CO) (UG/L)
OCT											
01...	7	0	7	<10	<9	1	0	0	0	<50	<50
DEC											
29...	5	0	5	<10	<10	0	0	0	0	<50	<50
MAR											
23...	5	--	5	<10	<10	0	0	0	0	<50	<49
JUN											
29...	5	--	2	<10	--	2	10	--	0	<50	--
SEP											
29...	8	1	7	10	9	1	0	0	0	<50	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)
OCT											
01...	0	<10	<7	3	150	--	100	<97	3	30	--
DEC											
29...	0	<10	<8	2	40	40	<100	<97	3	30	20
MAR											
23...	1	10	10	0	270	40	<100	<99	1	30	20
JUN											
29...	0	<10	--	8	0	10	<100	--	13	10	--
SEP											
29...	0	<10	<8	2	20	10	<100	<91	9	20	10

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT										
01...	--	--	--	--	--	--	--	--	--	--
DEC										
29...	10	.2	.2	.0	0	0	0	10	0	10
MAR										
23...	10	.2	--	.0	1	0	1	0	0	0
JUN										
29...	0	.0	--	.2	0	0	1	4	--	4
SEP										
29...	10	.0	.0	.0	0	0	0	0	0	10

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 1,76	OCT 28,76	DEC 1,76	JAN 26,77	FEB 24,77
TIME	1100	1400	1230	1200	1100
TOTAL CELLS/ML	1000	680	600	3200	8900
DIVERSITY: DIVISION	0.9	0.3	0.4	0.5	0.1
.CLASS	0.9	0.3	0.4	0.5	0.1
..ORDER	1.3	1.2	0.5	0.7	0.3
...FAMILY	1.4	1.6	0.6	0.7	0.3
....GENUS	1.8	2.2	1.2	0.7	0.3

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....CHARACIUM	--	-	--	-	--	-	--	-	--	-
....SCHROEDERIA	--	-	7	1	--	-	--	-	--	-
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	27	1	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	22	3	29	5	*	0	--	-
....CHODATELLA	--	-	--	-	4	1	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	27	1	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	15	3	--	-	--	-
....SCENEDESMUS	--	-	15	2	--	-	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	110	3	--	-
..TETRASPORALES										
...PALMELLACEAE										
....GLOEOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	110	11	59	9	--	-	2900*	89	8500*	95
....MELOSIRA	520*	51	380*	56	460*	76	--	-	--	-
....STEPHANODISCUS	--	-	*	0	86	14	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	*	0	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	34	3	22	3	--	-	55	2	240	3
....FRAGILARIA	22	2	120*	18	10	2	--	-	--	-
....HANNAEA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	7	1	--	-	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEIS	--	-	--	-	--	-	--	-	--	-
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	22	2	22	3	--	-	*	0	--	-
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	--	-	--	-	*	0	--	-	--	-
....NITZSCHIA	--	-	15	2	--	-	*	0	80	1
...SURIRELLACEAE										
....SURIRELLA	--	-	7	1	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	11	1	--	-	--	-	--	-	--	-

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977 (CONTI

DATE	OCT 1.76		OCT 26.76		DEC 1.76		JAN 26.77		FEB 24.77	
TIME	1100		1400		1230		1200		1100	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	*	0	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	290#	29	--	-	--	-	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	140	4	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...CERATIACEAE										
....CERATIUM	--	-	--	-	--	-	--	-	--	-
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	80	1
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 25.77	JUN 29.77	JUL 27.77	AUG 24.77	SEP 29.77
TIME	1130	1230	1015	1120	1320
TOTAL CELLS/ML	450	2100	160	1500	1900
DIVERSITY: DIVISION	0.4	1.1	0.9	0.2	1.6
.CLASS	0.4	1.1	0.9	0.2	1.6
..ORDER	0.6	1.4	1.5	0.7	2.4
...FAMILY	2.6	1.7	2.6	0.7	2.6
....GENUS	3.3	2.0	2.7	0.7	3.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....CHARACIUM	--	-	--	-	--	-	--	-	*	0
....SCHROEDERIA	--	-	21	1	--	-	--	-	--	-
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	69	4
...COELASTRACEAE										
....COELASTRUM	--	-	35	2	--	-	--	-	*	0
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	350*	17	--	-	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	9	6	--	-	47	3
....CHODATELLA	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	16	1
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	33	7	28	1	--	-	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES										
...PALMELLACEAE										
....GLOEOCYSTIS	--	-	--	-	--	-	--	-	26	1
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	84	5
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	63	3	9	6	--	-	16	1
..ZYGNEMATALES										
...DESMIDIACEAE										
....STAURASTRUM	--	-	--	-	--	-	--	-	*	0
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	12	3	--	-	9	6	18	1	26	1
....MELOSIRA	8	2	56	3	9	6	--	-	440*	24
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	8	2	--	-	--	-	--	-	*	0
....COCCONEIS	--	-	*	0	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	9	6	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	16	4	--	-	--	-	--	-	--	-
....EPITHEMIA	12	3	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	24	5	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	8	2	49	2	--	-	--	-	--	-
....FRAGILARIA	82*	18	1300*	63	61*	38	--	-	26	1
....HANNAEA	33	7	--	-	--	-	--	-	--	-
....SYNEDRA	16	4	35	2	--	-	--	-	*	0
...GOMPHONEMATACEAE										
....GOMPHONEIS	24	5	--	-	--	-	--	-	--	-
....GOMPHONEMA	16	4	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	16	4	*	0	9	6	14	1	11	1
....PINNULARIA	4	1	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	*	0	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	140*	31	--	-	33*	21	14	1	*	0
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	MAY 25,77 1130		JUN 29,77 1230		JUL 27,77 1015		AUG 24,77 1120		SEP 29,77 1320	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCOCCALES										
...CHROCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	130	7
....ANACYSTIS	--	-	--	-	--	-	150	10	460#	25
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	1300#	87	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-	420#	22
..CHROCOCCALES										
...CHROCOCCACEAE										
....GOMPHOSPHAERIA	--	-	110	5	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	37	2
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	21	1	--	-	--	-	16	1
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	5	3	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...CERATIACEAE										
....CERATIUM	--	-	--	-	--	-	--	-	*	0
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	5	3	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO- SURE (DAYS) (00022)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70955)	CHLOR-B PERI- PHYTON CHROMO- SPECT- METRIC (MG/M2) (70956)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)
DEC								
29...	28	.308	.154	.105	.067	--	--	1467
JUN								
29...	35	34.3	27.8	--	--	6.03	1.17	1078

13296500 Salmon River below Yankee Fork, near Clayton, ID

LOCATION.--Lat 44°16'06", long 114°43'55", in sec.20, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, on left bank 700 ft (213 m) downstream from Yankee Fork, 18 mi (29 km) upstream from Clayton, and at mile 366.9 (590.3 km).

DRAINAGE AREA.--802 mi² (2,077 km²). Mean altitude, 7,790 ft (2,374 m).

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1317. Operated as high-flow station only 1972-76 (discharge for period October 1976 to April 1977 was estimated).

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft or 1,798 m (by barometer). Sept. 3, 1927, to Nov. 5, 1934, at site 200 ft (61 m) downstream at approximately present datum. Oct. 3, 1926, to Sept. 2, 1927, at site 200 ft (61 m) downstream at approximately present datum. Prior to Oct. 3, 1926, nonrecording gage at site 200 ft (61 m) downstream at datum approximately 1.5 ft (0.5 m) higher.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 4,400 acres or 1,780 hm² (1966 determination).

AVERAGE DISCHARGE.--52 years, 1,002 ft³/s (28.4 m³/s), 16.97 in/yr (431 mm/yr), 725,900 acre-ft/yr (895 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum, 10,400 ft³/s (295 m³/s) June 17, 1974 (gage height, 11.86 ft or 3.615 m); minimum, 160 ft³/s or 4.53 m³/s (estimated) Nov. 25-30, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft³/s (38.8 m³/s) June 11 (gage height, 3.86 ft or 1.177 m); minimum, 277 ft³/s (7.84 m³/s) Aug. 24 (gage height, 1.57 or 0.478 m).

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in reports for 1974-76.

Water year	Date	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
1974	June 17	10,400	295	11.86	3.615
1975	June 7	5,950	169	8.55	2.606
1976	May 28	4,950	140	7.95	2.423

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							450	858	2060	1290	482	425
2							450	889	2030	1200	466	432
3							440	990	1910	1100	576	411
4							450	1030	1750	1030	584	396
5							470	1040	1670	990	538	396
6							490	1070	1680	952	513	389
7							520	1160	1790	910	497	432
8							480	1300	1960	863	452	462
9							478	1220	2090	813	474	444
10							482	1140	2180	764	470	429
11							513	1100	2050	750	459	421
12							563	1170	1900	740	451	411
13							642	1360	1830	740	458	407
14							688	1820	2160	731	440	411
15							633	1860	2370	721	432	410
16							615	2160	2090	665	429	420
17							615	2540	2030	633	421	450
18							567	2900	1870	619	418	460
19							530	3210	1690	624	396	450
20							534	3270	1490	774	386	460
21							517	3060	1390	750	378	480
22							550	2780	1360	750	425	490
23							615	2610	1370	698	429	500
24							750	2590	1370	651	411	505
25							843	2620	1350	619	407	509
26							920	2610	1340	584	407	493
27							1080	2310	1360	563	400	478
28							1160	2070	1360	542	414	470
29							1030	1900	1410	538	396	470
30							878	1880	1370	522	382	474
31							---	1990	---	509	400	---
TOTAL							18953	58507	52280	23635	13790	13385
MEAN							632	1887	1743	762	445	446
MAX							1160	3270	2370	1290	584	509
MIN							440	858	1340	509	378	389
CFSM							.79	2.35	2.17	.95	.56	.56
IN.							.88	2.71	2.42	1.10	.64	.62
AC-FT							37590	116000	103700	46880	27350	26550

NOTE.--No gage-height record Oct. 1 to Apr. 8 and Sept. 15-23.

13296500 Salmon River below Yankee Fork, near Clayton, ID--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	637	585	424	615	513	628	2680	4520	5280	1490	745
2	455	478	570	418	602	542	593	2860	4920	5170	1490	740
3	450	436	535	436	588	534	588	2930	5680	4720	1480	726
4	435	466	540	455	580	530	563	3100	6260	4240	1400	726
5	430	474	474	470	571	530	567	3420	6810	4050	1340	702
6	435	505	538	482	509	534	584	3720	6400	3970	1370	698
7	460	542	559	485	563	534	571	3760	5630	3840	1510	693
8	475	559	542	501	542	530	580	4220	4910	3670	1450	688
9	470	584	462	490	534	482	597	4590	4580	3550	1340	679
10	465	735	462	495	534	489	610	4320	4660	3520	1250	665
11	450	878	501	505	509	509	619	4000	5230	3560	1180	656
12	455	1500	526	515	542	522	660	3660	6170	3140	1140	660
13	455	1310	522	540	522	509	633	3310	7350	2960	1110	674
14	455	1040	517	565	501	505	665	3010	8440	2770	1080	674
15	465	910	501	567	513	509	716	2780	9220	2770	1040	679
16	450	853	526	995	513	534	818	2510	10000	2730	1010	683
17	440	808	571	1200	505	619	941	2360	10300	2630	984	688
18	430	794	563	1060	497	674	1090	2180	10200	2570	952	674
19	425	774	497	1080	513	633	1220	2060	9850	2510	941	665
20	420	645	466	952	497	571	1370	2000	9440	2480	1020	683
21	425	650	538	848	458	563	1480	1880	8580	2400	995	665
22	430	635	542	789	497	588	1590	1840	7600	2320	941	660
23	435	625	517	774	474	546	2070	1920	7300	2280	910	660
24	445	595	478	759	462	534	2590	2200	7250	2190	878	656
25	455	560	513	735	485	550	3060	2710	7230	2060	853	651
26	460	555	436	702	497	563	3110	3500	6980	1870	838	646
27	445	560	501	665	489	576	2570	4740	6290	1800	823	646
28	445	560	493	651	493	606	2240	5660	5770	1730	798	610
29	444	595	513	637	---	593	2110	5650	5440	1650	784	606
30	432	585	497	615	---	642	2350	4990	5300	1610	764	610
31	458	---	478	610	---	637	---	4530	---	1540	750	---
TOTAL	13854	20848	15963	20425	14605	17201	37783	103090	208310	91580	33911	20208
MEAN	447	695	515	659	522	555	1259	3325	6944	2954	1094	674
MAX	475	1500	585	1200	615	674	3110	5660	10300	5280	1510	745
MIN	420	436	436	418	458	482	563	1840	4520	1540	750	606
CFSM	.56	.87	.64	.82	.65	.69	1.57	4.15	8.66	3.68	1.36	.84
IN.	.64	.97	.74	.95	.68	.80	1.75	4.78	9.66	4.25	1.57	.94
AC-FT	27480	41350	31660	40510	28970	34120	74940	204500	413200	181600	67260	40080

WTR YR 1974 TOTAL 597778 MEAN 1638 MAX 10300 MIN 418 CFSM 2.04 IN 27.73 AC-FT 1186000

NOTE.--No gage-height record Oct. 1-28.

13296500 Salmon River below Yankee Fork, near Clayton, ID--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	624							445	3380	3500	1300	702
2	619							450	3840	3870	1230	693
3	610							545	4280	4240	1200	688
4	610							650	4280	4570	1120	669
5	610							630	4470	4890	1070	651
6	624							540	5140	5090	1020	642
7	615							501	5880	5160	1030	628
8	610							542	5530	4880	1030	615
9	---							610	4990	4660	990	610
10	---							740	4520	4440	955	619
11	---							962	4300	4070	910	637
12	---							978	4380	3970	870	624
13	---							1310	4650	4120	845	615
14	---							1640	4920	3720	860	615
15	---							2120	5240	3400	895	619
16	---							2480	5420	3090	885	665
17	---							2610	5100	2820	880	637
18	---							2750	5040	2630	930	624
19	---							2870	4660	2400	1000	619
20	---							2410	4200	2150	808	615
21	---							2050	3880	2020	774	606
22	---							1850	3730	1890	968	597
23	---							1820	3750	1790	915	584
24	---							1940	4070	1640	1150	580
25	---							1740	4250	1530	962	571
26	---							1700	4100	1450	889	567
27	---							1790	3830	1370	838	563
28	---							1790	3530	1320	828	550
29	---							1990	3280	1280	813	546
30	---							2370	3250	1500	759	538
31	---							2880	---	1320	716	---
TOTAL	---							47703	131890	94780	29440	18489
MEAN	---							1539	4396	3057	950	616
MAX	---							2880	5880	5160	1300	702
MIN	---							445	3250	1280	716	538
CFSM	---							1.92	5.48	3.81	1.19	.77
IN.	---							2.21	6.12	4.40	1.37	.86
AC-FT	---							94620	261600	188000	58390	36670

NOTE.--No gage-height record Oct. 9 to May 7 and July 30 to Aug. 19.

13296500 Salmon River below Yankee Fork, near Clayton, ID--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	1500	4180	2320		
2							---	1830	3980	2230		
3							---	2000	3880	2100		
4							---	2190	3800	2020		
5							---	2290	3750	1960		
6							---	2250	3800	1930		
7							---	2390	3920	1900		
8							---	2830	4110	1860		
9							---	3150	4230	1810		
10							---	3590	4260	1780		
11							---	4430	4210	1740		
12							---	4080	3960	1700		
13							---	4130	3700	1600		
14							---	4680	3300	1510		
15							---	4650	2950	1430		
16							---	4500	2840	1340		
17							---	4570	2930	1300		
18							---	4750	2880	1490		
19							---	4720	2500	1420		
20							---	4570	3190	1310		
21							---	4380	3300	1260		
22							---	4340	3280	1210		
23							---	4270	3130	1140		
24							---	4390	2900	1130		
25							---	4550	2720	1110		
26							1200	4500	2530	1060		
27							1140	4470	2350	1010		
28							1100	4800	2240	965		
29							1110	4840	2240	955		
30							1260	4590	2300	970		
31							---	4470	---	935		
TOTAL	---	---	---	---	---	---	---	118700	99360	46495	---	---
MEAN	---	---	---	---	---	---	---	3829	3312	1500	---	---
MAX	---	---	---	---	---	---	---	4840	4260	2320	---	---
MIN	---	---	---	---	---	---	---	1500	2240	935	---	---
CFSM	---	---	---	---	---	---	---	4.77	4.13	1.87	---	---
IN.	---	---	---	---	---	---	---	5.51	4.61	2.16	---	---
AC-FT	---	---	---	---	---	---	---	235400	197100	92220	---	---

NOTE.--No gage-height record Oct. 1 to Apr. 26 and July 24 to Sept. 30.

13296500 Salmon River below Yankee Fork, near Clayton, ID--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	550	490	340	370	380	380	370	648	644	406	347	351
2	550	520	380	375	380	375	365	672	755	477	330	334
3	565	535	380	380	370	375	365	639	770	504	323	334
4	565	520	410	365	370	375	380	616	825	576	320	323
5	550	500	385	370	370	370	405	576	895	567	330	320
6	550	490	380	365	370	390	435	567	940	516	330	300
7	560	465	390	385	370	400	470	576	1140	461	320	300
8	535	480	345	370	370	395	550	594	1230	455	340	294
9	530	460	400	365	370	395	670	576	1260	447	334	294
10	530	470	395	375	370	380	605	634	1320	444	320	297
11	525	470	410	385	370	370	600	594	1340	432	313	294
12	520	460	390	395	375	380	640	554	1250	418	307	287
13	520	420	395	395	380	395	600	544	1140	411	307	287
14	515	415	340	395	375	370	532	544	1070	396	304	284
15	510	460	390	390	375	345	524	544	1190	386	304	294
16	510	465	345	395	375	365	594	536	1050	368	297	323
17	505	480	390	395	385	365	616	544	942	358	287	354
18	500	470	380	395	380	350	532	532	855	337	287	358
19	490	470	390	390	380	375	504	558	835	334	281	358
20	495	455	395	390	385	355	465	554	820	340	281	389
21	500	430	350	385	385	370	490	516	795	364	287	407
22	495	465	380	380	380	370	500	516	735	382	290	411
23	495	430	375	365	380	380	528	558	684	382	284	407
24	490	430	380	365	375	385	572	621	634	436	277	436
25	500	450	385	390	370	375	612	698	599	512	323	466
26	505	395	390	380	380	370	670	720	558	425	358	451
27	500	300	390	390	370	360	675	770	528	463	358	436
28	480	370	380	375	375	370	644	711	512	386	347	421
29	495	400	365	375	---	365	640	675	489	372	340	455
30	500	390	370	375	---	365	652	644	470	358	351	520
31	495	---	375	380	---	370	---	608	---	361	382	---
TOTAL	16010	13555	11770	11825	10515	11615	16244	18617	26374	13094	9859	10785
MEAN	516	452	380	381	376	375	541	601	879	422	318	360
MAX	565	535	410	395	385	400	675	770	1340	576	382	520
MIN	480	300	345	365	370	345	365	516	470	334	277	284
AC-FT	31760	26890	23350	23450	20860	23040	32220	36930	52310	25970	19560	21390

WTR YR 1977 TOTAL 176265 MEAN 483 MAX 1340 MIN 277 AC-FT 349700

NOTE.--No gage-height record Oct. 1 to Apr. 14.

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13297330 THOMPSON CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°16'01", long 114°30'48", in NE¼NE¼SE¼ sec.24, T.11 N., R.16 E., Custer County, Hydrologic Unit 17060201, on right bank 1.2 mi (1.9 km) upstream from mouth, 2.2 mi (3.5 km) below Pat Hughes Creek, 5.7 mi (9.2 km) west of Clayton, at mile 354.8 (570.9 km).

DRAINAGE AREA.--29.1 mi² (75.4 km²).

PERIOD OF RECORD.--November 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is about 5,700 ft or 1,737 m (from topographic map).

REMARKS.--Records good.

AVERAGE DISCHARGE.--5 years, 18.4 ft³/s (0.521 m³/s), 8.59 in/yr (218 mm/yr), 13,330 acre-ft/yr (16.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 332 ft³/s (9.35 m³/s) June 16, 1974 (gage height, 5.61 ft or 1.710 m, from floodmark); minimum, 1.3 ft³/s (0.037 m³/s) Nov. 27, 1976 (gage height, 3.72 ft or 1.134 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft³/s (0.57 m³/s) June 11 (gage height, 4.24 ft or 1.292 m), no peak above base of 80 ft³/s (2.27 m³/s); minimum, 1.3 ft³/s (0.037 m³/s) Nov. 27 (gage height, 3.72 or 1.134 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Feb. 3-8, 25, Mar. 11, 20)

3.7	1.0	4.1	12
3.8	2.4	4.3	24
3.9	4.8		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	4.3	3.8	2.9	2.4	3.1	3.1	6.9	10	5.7	3.1	2.4
2	6.9	4.3	3.6	2.9	3.1	3.1	2.9	6.9	12	6.0	3.0	2.2
3	6.9	4.6	3.6	2.9	2.4	2.9	3.1	8.5	11	6.3	2.3	2.0
4	6.8	4.3	3.6	2.9	2.4	3.1	3.4	7.5	11	7.8	2.3	1.9
5	6.8	4.3	3.6	3.1	2.4	3.1	4.1	7.2	11	7.8	2.3	1.8
6	6.0	4.3	3.4	3.4	2.4	2.9	5.4	7.2	13	6.3	2.6	1.7
7	5.7	4.3	3.6	3.1	2.4	2.9	6.6	6.9	13	5.1	2.4	1.6
8	5.7	4.3	3.6	3.4	2.4	2.9	10	6.6	12	5.1	2.8	1.6
9	5.7	4.6	3.6	3.4	2.6	2.9	13	6.6	13	5.1	2.7	1.6
10	5.7	4.6	3.4	2.9	2.9	2.9	8.2	7.2	13	5.1	2.4	1.6
11	5.4	4.6	3.6	3.0	3.1	2.8	6.2	7.2	18	4.6	2.2	1.6
12	5.4	3.8	3.6	3.0	2.4	3.1	8.5	6.9	15	4.3	2.0	1.7
13	5.4	2.4	3.6	3.0	2.9	2.9	8.5	6.9	14	4.3	2.0	1.7
14	5.4	3.1	3.6	3.0	2.4	2.9	7.2	7.2	14	4.3	1.9	1.7
15	5.4	4.8	3.4	3.0	3.1	2.9	6.6	7.2	14	4.1	1.9	1.8
16	5.4	4.8	3.4	3.0	3.1	3.1	7.5	7.2	13	3.8	1.8	2.3
17	5.1	4.6	3.1	3.0	3.1	3.4	7.8	7.2	12	3.6	1.7	2.6
18	5.1	4.6	2.9	3.0	3.1	3.1	6.9	7.2	11	3.4	1.6	2.6
19	4.9	4.6	2.9	2.9	3.1	3.1	6.6	6.6	10	3.4	1.6	2.4
20	4.8	4.3	2.9	2.9	3.1	3.0	6.3	6.6	10	3.4	1.6	2.5
21	4.7	3.8	2.9	2.9	3.1	3.4	6.3	6.9	10	2.9	1.5	2.6
22	4.7	4.3	2.6	2.9	3.1	3.4	6.6	6.9	9.3	3.1	1.6	2.6
23	4.7	3.8	2.9	2.8	3.1	3.4	7.2	7.5	8.5	3.7	1.6	2.6
24	4.7	4.1	3.4	2.8	3.1	3.6	8.2	8.5	7.8	5.2	1.6	2.5
25	4.7	4.6	3.4	2.8	2.8	3.4	8.9	10	7.5	7.7	1.8	2.6
26	4.7	2.3	3.4	2.7	3.1	3.4	9.7	10	6.9	5.2	2.3	2.8
27	4.3	1.6	3.4	2.7	3.4	3.6	9.7	11	6.3	4.4	2.4	3.0
28	4.1	1.8	3.1	2.7	3.1	3.4	9.7	10	6.3	3.9	2.4	2.9
29	4.1	2.4	3.4	2.7	---	3.1	9.7	9.7	5.7	3.7	2.2	3.0
30	4.3	3.6	3.4	2.7	---	3.1	9.3	9.3	5.7	3.4	2.2	3.5
31	4.7	---	3.1	2.9	---	3.1	---	8.9	---	3.3	2.6	---
TOTAL	158.6	117.8	103.8	91.3	81.1	97.0	219.2	244.4	324.0	146.0	66.4	67.4
MEAN	5.12	3.93	3.35	2.95	2.90	3.13	7.31	7.88	10.8	4.71	2.14	2.25
MAX	6.9	4.8	3.8	3.4	3.4	3.6	13	11	18	7.8	3.1	3.5
MIN	4.1	1.6	2.6	2.7	2.4	2.8	2.9	6.6	5.7	2.9	1.5	1.6
CFSM	.18	.14	.12	.10	.10	.11	.25	.27	.37	.16	.07	.08
IN.	.20	.15	.13	.12	.10	.12	.28	.31	.41	.19	.08	.09
AC-FT	315	234	206	181	161	192	435	485	643	290	132	134

CAL YR 1976 TOTAL 8790.9 MEAN 24.0 MAX 164 MIN 1.6 CFSM .83 IN 11.24 AC-FT 17440
WTR YR 1977 TOTAL 1717.0 MEAN 4.70 MAX 18 MIN 1.5 CFSM .16 IN 2.19 AC-FT 3410

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13297350 BRUNO CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°17'56", long 114°26'50", in SW¼NE¼ sec.8, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, Bureau of Land Management lands, on left bank 0.2 mi (0.3 km) upstream from mouth, and 4.8 mi (7.7 km) northwest of Clayton.

DRAINAGE AREA.--6.29 mi^2 (16.29 km^2).

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR ID-76-1: 1974-75(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,837 ft or 1,779.1 m (from topographic map).

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--6 years, 1.88 ft^3/s (0.053 dm^3/s), 4.06 in/yr (103 mm/yr), 1,362 acre-ft/yr (1.68 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft^3/s (1.19 m^3/s) May 31, 1972 (gage height, 2.45 ft or 0.747 m); minimum, 0.03 ft^3/s (0.850 dm^3/s) Sept. 13, 1977 (gage height, 2.14 ft or 0.652 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1.1 ft^3/s (31.15 dm^3/s) Apr. 26 to May 2 (gage height, 2.32 ft or 0.707 m), no peak above base of 16 ft^3/s (0.45 m^3/s); minimum, 0.03 ft^3/s (0.850 dm^3/s) Sept. 13.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.12	0.03	2.20	0.34
2.14	.09	2.26	.69
2.16	.16	2.31	1.04

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	.39	.24	.30	.29	.31	.31	1.1	.34	.20	.14	.12
2	.69	.39	.27	.30	.31	.31	.29	1.1	.34	.20	.12	.12
3	.75	.44	.29	.33	.24	.29	.31	1.0	.33	.22	.09	.12
4	.69	.44	.29	.30	.24	.31	.34	.96	.31	.26	.09	.12
5	.69	.44	.29	.32	.24	.31	.37	.90	.29	.29	.09	.09
6	.69	.39	.31	.33	.24	.29	.42	.87	.29	.28	.09	.09
7	.69	.39	.34	.31	.24	.29	.48	.83	.33	.26	.09	.09
8	.62	.45	.35	.33	.24	.29	.58	.83	.36	.24	.12	.09
9	.62	.45	.35	.33	.27	.29	.70	.86	.33	.23	.12	.09
10	.62	.45	.34	.29	.30	.29	.52	.89	.34	.23	.12	.09
11	.56	.42	.34	.31	.31	.29	.50	.89	.38	.22	.12	.09
12	.56	.39	.34	.31	.29	.31	.54	.85	.39	.20	.09	.09
13	.56	.36	.34	.31	.29	.29	.54	.82	.37	.20	.09	.09
14	.56	.34	.33	.31	.29	.29	.49	.82	.34	.19	.09	.09
15	.50	.34	.34	.31	.31	.29	.45	.79	.33	.18	.09	.09
16	.50	.34	.30	.31	.31	.31	.45	.76	.29	.16	.09	.12
17	.50	.34	.30	.31	.31	.35	.45	.76	.27	.15	.06	.12
18	.50	.38	.30	.31	.31	.32	.50	.76	.24	.14	.06	.16
19	.44	.40	.30	.29	.31	.32	.50	.74	.24	.14	.06	.16
20	.44	.45	.30	.29	.31	.30	.48	.71	.24	.14	.06	.16
21	.44	.40	.30	.29	.31	.34	.45	.68	.24	.15	.06	.16
22	.44	.39	.27	.29	.31	.34	.60	.53	.24	.16	.06	.16
23	.50	.35	.26	.27	.31	.34	.89	.45	.22	.18	.06	.16
24	.50	.34	.27	.27	.31	.36	.96	.45	.20	.21	.06	.16
25	.50	.34	.29	.27	.28	.34	1.0	.45	.19	.24	.09	.19
26	.44	.34	.31	.27	.31	.34	1.1	.45	.22	.26	.09	.19
27	.50	.34	.32	.27	.34	.36	1.1	.45	.24	.24	.09	.16
28	.50	.30	.33	.27	.31	.34	1.1	.45	.23	.22	.09	.13
29	.44	.24	.33	.29	---	.31	1.1	.41	.22	.18	.09	.15
30	.39	.24	.32	.27	---	.31	1.1	.37	.21	.16	.09	.16
31	.39	---	.30	.29	---	.31	---	.34	---	.15	.12	---
TOTAL	16.65	11.27	9.56	9.25	8.13	9.74	18.62	22.27	8.54	6.28	2.78	3.81
MEAN	.54	.38	.31	.30	.29	.31	.62	.72	.28	.20	.090	.13
MAX	.75	.45	.35	.33	.34	.36	1.1	1.1	.39	.29	.14	.19
MIN	.39	.24	.24	.27	.24	.29	.29	.34	.19	.14	.06	.09
CFSM	.09	.06	.05	.05	.05	.05	.10	.11	.05	.03	.01	.02
IN.	.10	.07	.06	.05	.05	.06	.11	.13	.05	.04	.02	.02
AC-FT	33	22	19	18	16	19	37	44	17	12	5.5	7.6

CAL YR 1976 TOTAL 921.85 MEAN 2.52 MAX 18 MIN .24 CFSM .40 IN 5.45 AC-FT 1830
WTR YR 1977 TOTAL 127.10 MEAN .35 MAX 1.1 MIN .06 CFSM .06 IN .75 AC-FT 252

NOTE.--No gage-height record Dec. 7 to Apr. 15.

13297355 SQUAW CREEK BELOW BRUNO CREEK, NEAR CLAYTON, ID

LOCATION.--Lat 44°17'26", long 114°28'14", in SW¼SW¼SW¼ sec.9, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, on left bank 3 mi (4.8 km) upstream from mouth and 4.5 mi (7.2 km) northwest of Clayton.

DRAINAGE AREA.--79.0 mi² (205 km²).

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR ID-76-1: 1975(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,710 ft or 1,740.40 m (from topographic map). Prior to June 12, 1974, at datum 2.46 ft higher.

REMARKS.--Records good except those during periods of ice effect, which are fair.

AVERAGE DISCHARGE.--5 years, 36.1 ft³/s (1.022 m³/s), 6.21 in/yr (158 mm/yr), 26,150 acre-ft/yr (32.2 hm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 694 ft³/s (19.7 m³/s) June 16, 1974 (gage height, 5.85 ft or 1.783 m); minimum, 3.8 ft³/s (0.11 m³/s) Aug. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft³/s (1.53 m³/s) June 11 (gage height, 3.52 ft or 1.073 m), no peak above base of 180 ft³/s (5.10 m³/s); minimum, 3.8 ft³/s (0.11 m³/s) Aug. 24 (gage height, 2.53 ft or 0.772 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 12-14, 20, 21, 23, 24, Nov. 26 to Dec. 3
Dec. 5, 6, 10-23, Dec. 28 to Jan. 2, Jan. 5-12, 20-30, Feb. 2-9, 14, 15, 17-20, 24, 25, 27,
Mar. 3-6, 9-11, 14-16, 18, 20, 26, 28, 29)

2.5	3.4	3.0	16
2.6	4.8	3.2	27
2.8	9.0	3.4	42

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	10	8.0	6.3	7.6	7.6	23	28	9.3	6.1	5.7
2	14	13	9.8	8.0	6.6	7.6	7.8	22	28	9.9	5.9	5.3
3	16	13	9.8	7.8	4.6	7.2	7.6	19	23	11	5.7	4.9
4	14	13	9.9	7.8	4.8	8.0	9.0	18	24	14	5.7	4.7
5	14	12	9.8	8.4	4.8	8.0	11	14	26	14	5.6	4.8
6	14	12	9.4	9.2	4.8	7.6	13	14	26	11	6.7	4.2
7	14	12	9.3	8.2	4.8	7.6	15	13	24	9.9	6.2	4.2
8	14	12	9.9	9.2	4.8	7.6	21	14	24	9.0	7.6	4.0
9	13	12	11	9.2	5.0	7.6	26	14	23	8.8	7.4	4.1
10	13	11	9.7	7.7	6.6	7.6	19	18	24	8.8	6.2	4.3
11	13	11	9.6	15	6.3	7.6	19	18	38	8.0	5.7	4.3
12	13	8.0	9.7	8.2	6.4	8.0	19	14	30	7.8	5.4	4.3
13	13	7.0	9.8	8.2	6.8	7.8	18	17	27	7.3	4.9	4.4
14	13	9.2	9.4	8.3	7.0	7.8	18	18	27	7.1	4.8	4.4
15	12	13	8.8	7.8	7.6	7.8	16	18	26	6.6	5.0	4.8
16	12	15	8.8	7.3	7.6	8.2	18	18	23	6.4	4.7	6.3
17	12	14	7.6	7.6	7.6	7.8	19	14	21	6.1	4.5	7.2
18	11	13	7.2	7.8	7.6	8.0	16	14	19	5.9	4.4	6.6
19	11	12	7.2	8.0	7.8	7.6	14	14	19	5.9	4.4	6.1
20	12	9.4	7.2	7.2	7.8	7.9	14	14	19	5.9	4.4	6.5
21	12	11	7.2	7.2	7.8	9.0	14	13	20	6.1	4.4	6.9
22	12	13	6.2	7.2	7.8	8.3	17	15	17	7.8	4.5	6.6
23	12	10	7.8	7.0	7.8	8.0	19	18	16	7.3	4.4	6.3
24	12	11	9.3	6.8	7.8	7.8	25	22	14	11	4.1	6.5
25	14	13	9.0	6.8	7.2	7.6	25	20	13	16	4.7	7.8
26	13	9.0	8.3	6.6	7.8	7.7	26	28	12	10	5.5	7.3
27	11	4.3	8.5	6.6	8.4	7.8	28	24	11	8.8	5.8	6.9
28	12	4.9	8.4	6.6	7.3	8.5	26	21	11	7.9	5.5	6.6
29	13	6.5	9.2	6.6	---	8.2	24	20	10	7.1	5.4	7.1
30	12	9.7	9.2	6.6	---	7.6	23	19	9.0	6.6	5.3	7.8
31	12	---	8.4	6.6	---	7.6	---	20	---	6.3	6.0	---
TOTAL	397	327.0	275.4	243.5	187.5	243.0	536.0	548	630.9	267.6	166.9	169.9
MEAN	12.8	10.9	8.88	7.85	6.70	7.84	17.9	17.7	21.0	8.63	5.38	5.66
MAX	16	15	11	15	8.4	9.0	28	28	38	16	7.6	7.8
MIN	11	4.3	6.2	6.6	4.6	7.2	7.6	13	9.0	5.9	4.1	4.0
CFSM	.16	.14	.11	.10	.09	.10	.23	.22	.27	.11	.07	.07
IN.	.19	.15	.13	.11	.09	.11	.25	.26	.30	.13	.08	.08
AC-FT	787	649	546	483	372	482	1060	1090	1250	531	331	337

CAL YR 1976 TOTAL 18770.4 MEAN 51.3 MAX 362 MIN 4.3 CFSM .65 IN 8.84 AC-FT 37230
WTR YR 1977 TOTAL 3992.6 MEAN 10.9 MAX 38 MIN 4.0 CFSM .14 IN 1.88 AC-FT 7920

13297440 LITTLE BOULDER CREEK ABOVE BAKER LAKE, NEAR CLAYTON, ID

LOCATION.--Lat 44°03'30", long 114°34'27", in SE¼SE¼ sec.33, T.9 N., R.16 E. (unsurveyed), Custer County, Hydrologic Unit 17060201, at narrow constriction between two meadows, 0.4 mi (0.6 km) downstream from unnamed lake, 0.5 mi (0.8 km) upstream from mouth of Castle Creek, 0.6 mi (0.9 km) west of Baker Lake, 8.5 mi (13.7 km) upstream from mouth, and 16.5 mi (36.5 km) southwest of Clayton.
DRAINAGE AREA.--2.83 mi² (7.32 km²).
PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)
JUN 15...	0930	17	19	6.7	9.0	3.5	9.4	98	<1.0	<1	<1	B1
JUL 12...	1420	4.2	28	7.4	18.5	15.0	7.0	95	--	B1	--	--
AUG 18...	0915	1.8	25	7.3	18.0	12.0	7.6	98	.5	B1130	<1	30
SEP 27...	1110	1.5	24	7.3	13.5	6.5	9.0	101	<1.0	63	<1	<1

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
JUN 15...	8	0	3.2	.0	.7	16	.1	.2	10	0	8	3.2
JUL 12...	8	0	3.3	.0	.8	17	.1	.2	12	0	10	.8
AUG 18...	10	0	3.4	.3	.8	15	.1	.2	29	0	24	2.3
SEP 27...	10	2	3.6	.3	.8	14	.1	.1	10	0	8	.8

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
JUN 15...	1.5	.2	.1	2.8	14	.02	.64	.08	.00	.01	.03	1.0
JUL 12...	1.3	.2	.1	2.4	15	.02	.17	.01	.00	.02	.06	1.2
AUG 18...	2.1	.2	.1	2.6	24	.03	.12	.01	.01	.00	.00	.3
SEP 27...	1.4	.2	.1	2.9	15	.02	.06	.03	.01	.00	.00	1.0

B Results based on count outside of ideal colony count range.

13297440 LITTLE BOULDER CREEK ABOVE BAKER LAKE, NEAR CLAYTON, IDAHO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
JUN 15...	20	0	0	0	0	1	0	0	0	60	5
JUL 12...	20	0	0	0	7	1	0	0	1	30	30
AUG 18...	0	100	1	0	4	1	0	1	1	20	5
SEP 27...	20	0	0	0	0	4	10	1	1	70	21

DATE	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JUN 15...	0	0	.0	0	6	0	0	70	.3	0
JUL 12...	2	0	.0	2	3	0	0	90	.0	0
AUG 18...	0	0	.0	1	2	0	0	100	.0	4
SEP 27...	0	0	.0	2	4	0	0	80	.0	10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)
JUN 15...	0930	3.5	<1
JUL 12...	1420	15.0	<1
AUG 18...	0915	12.0	<1
SEP 27...	1110	6.5	<1

13297445 LITTLE BOULDER CREEK BELOW BOULDER CHAIN LAKES OUTLET, NEAR CLAYTON, ID

LOCATION.--Lat 44°03'56", long 114°32'31", in NW¼SE¼ sec.35, T.9 N., R.16 E. (unsurveyed), Custer County, Hydrologic Unit 17060201, just below Boulder Chain Lakes outlet, 6 mi (9.6 km) upstream from mouth, and 15.6 mi (25.1 km) southwest of Clayton.
DRAINAGE AREA.--9.94 mi² (25.74 km²).
PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)
JUN												
15...	1045	35	38	6.7	10.0	5.0	9.5	100	<1.0	<1	<1	87
JUL												
12...	1515	13	49	7.4	18.5	15.0	7.1	94	--	30	--	--
AUG												
18...	1000	7.1	63	6.8	15.5	12.5	7.6	96	.5	B835	B5	B369
SEP												
27...	1145	5.1	67	7.6	13.5	5.5	9.7	104	<1.0	103	B3	B40

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
JUN												
15...	17	1	6.3	.2	1.1	12	.1	.2	20	0	16	6.4
JUL												
12...	22	0	7.9	.5	1.2	11	.1	.2	29	0	24	1.8
AUG												
18...	31	0	11	.8	1.6	10	.1	.3	46	0	38	12
SEP												
27...	51	19	18	1.4	3.8	14	.2	.3	39	0	32	1.6

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
JUN												
15...	1.8	.3	.1	5.6	26	.04	2.46	.05	.00	.04	.12	1.3
JUL												
12...	1.9	.7	.1	6.9	34	.05	1.22	.01	.01	.00	.00	.5
AUG												
18...	7.5	.3	.2	8.8	54	.07	1.04	--	.02	.01	.03	.5
SEP												
27...	3.8	.7	.2	2.1	50	.07	.69	.02	.01	.01	.03	1.0

B Results based on count outside of ideal colony count range.

13297445 LITTLE BOULDER CREEK BELOW BOULDER CHAIN LAKE OUTLET, NEAR CLAYTON, IDAHO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
JUN 15...	20	0	1	0	2	1	0	0	0	90	6
JUL 12...	20	0	0	0	30	0	0	0	1	50	8
AUG 18...	0	100	1	0	20	0	0	0	1	70	4
SEP 27...	20	0	0	0	4	1	10	0	1	60	3

DATE	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JUN 15...	0	0	.0	3	6	0	0	90	.2	0
JUL 12...	2	0	.0	7	3	0	0	100	.0	0
AUG 18...	0	8	.0	10	3	0	0	140	--	4
SEP 27...	3	0	.0	8	5	0	0	120	1.0	50

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
JUN 15...	1045	5.0	2	.19
JUL 12...	1515	15.0	<1	--
AUG 18...	1000	12.5	1	.02
SEP 27...	1145	5.5	1	.01

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°05'57", long 114°26'56", in SW¼NE¼NW¼ sec.22, T.9 N., R.17 E., Custer County, Hydrologic Unit 17060201, on right bank 950 ft (290 m) upstream from mouth and 11 mi (17.7 km) south of Clayton.

DRAINAGE AREA.--18.4 mi² (47.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft or 1,890 m (from topographic map).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--7 years, 22.7 ft³/s (0.654 m³/s), 16.75 in/yr (425 mm/yr), 16,450 acre-ft/yr (20.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 570 ft³/s (16.1 m³/s) June 1, 1972 (gage height, 5.84 ft or 1.780 m); maximum gage height, 5.96 ft (1.817 m) Jan. 31, 1975; minimum discharge, 2.5 ft³/s (70.8 dm³/s) Apr. 28, 1973 (gage height, 3.45 ft or 1.052 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 77 ft³/s (2.18 m³/s) June 8 (gage height, 4.79 ft or 1.460 m), no peaks above base of 100 ft³/s (2.83 m³/s); minimum daily, 3.0 ft³/s (0.085 dm³/s) Nov. 27, Jan. 11, 12, 26, 27.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 21, 22, 27. 28, 29, Jan. 1-16, 24-31, Feb. 1-8)

3.4	2.6	3.9	7.2
3.5	3.2	4.1	12
3.6	3.9	4.4	26
3.7	4.7	4.8	77

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	7.4	5.4	3.8	3.5	3.4	3.6	13	13	13	11	7.8
2	14	7.6	5.0	3.6	3.5	3.4	3.7	14	28	13	9.9	7.4
3	14	7.6	4.9	3.6	3.5	3.4	4.0	13	39	13	9.5	7.0
4	14	7.6	4.8	3.8	3.5	3.3	4.9	12	44	25	9.2	6.8
5	13	7.2	4.7	3.5	3.2	3.3	5.7	10	50	35	9.2	6.7
6	13	7.2	4.5	3.5	3.2	3.4	5.6	9.2	55	29	8.8	6.4
7	12	7.0	4.7	3.5	3.2	3.4	5.7	9.3	65	23	8.9	6.3
8	12	6.5	4.8	3.5	3.2	3.4	6.5	9.4	72	18	11	6.1
9	12	6.4	4.8	3.5	3.3	3.4	5.8	9.5	66	16	9.8	6.0
10	12	6.2	4.7	3.5	3.4	3.4	5.1	11	66	15	9.5	5.9
11	11	5.9	4.7	3.0	3.4	3.3	5.3	8.9	58	14	9.0	5.8
12	11	4.8	4.6	3.0	3.4	3.3	5.6	8.4	45	13	8.8	5.6
13	11	4.2	4.6	3.5	3.5	3.3	5.3	9.0	38	12	8.3	5.6
14	10	5.3	4.5	3.5	3.4	3.2	4.9	9.5	37	11	8.0	5.5
15	10	6.1	4.5	3.5	3.4	3.2	5.1	11	39	11	8.1	5.9
16	9.7	6.8	4.5	3.6	3.4	3.2	6.0	11	35	10	7.7	6.2
17	9.4	6.2	4.5	3.4	3.4	3.3	5.4	12	31	9.5	7.4	6.6
18	9.0	6.2	4.4	3.9	3.4	3.3	5.0	12	27	9.1	7.2	6.4
19	9.2	5.8	4.2	3.4	3.4	3.3	4.9	11	26	8.9	7.0	6.3
20	9.0	4.8	4.0	3.8	3.4	3.3	5.1	12	27	9.1	6.9	6.7
21	9.0	5.0	4.0	3.8	3.4	3.4	5.4	10	25	9.6	6.8	6.9
22	8.8	5.0	4.0	3.5	3.4	3.5	5.7	9.7	22	12	6.7	6.9
23	8.8	5.1	4.1	3.7	3.4	3.7	6.5	11	21	12	6.5	6.7
24	8.4	5.3	4.1	3.5	3.3	3.6	7.0	11	19	17	6.3	6.8
25	8.0	5.5	4.1	3.2	3.3	3.6	7.8	11	19	21	6.7	6.8
26	8.0	3.3	4.1	3.0	3.3	3.6	8.8	11	18	20	7.4	6.8
27	7.6	3.0	4.1	3.0	3.3	3.6	9.5	11	18	18	7.5	6.6
28	7.8	3.6	4.1	3.2	3.4	3.5	11	11	16	16	7.2	6.3
29	7.8	5.2	4.1	3.5	---	3.6	12	9.9	14	14	7.3	7.1
30	7.8	5.6	4.0	3.5	---	3.6	13	9.1	13	12	7.7	7.6
31	7.2	---	3.9	3.5	---	3.6	---	9.3	---	12	8.3	---
TOTAL	318.5	173.4	137.4	109.2	94.4	105.8	189.9	329.2	1046	471.2	253.6	195.5
MEAN	10.3	5.78	4.43	3.52	3.37	3.41	6.33	10.6	34.9	15.2	8.18	6.52
MAX	14	7.6	5.4	3.9	3.5	3.7	13	14	72	35	11	7.8
MIN	7.2	3.0	3.9	3.0	3.2	3.2	3.6	8.4	13	8.9	6.3	5.5
CFSM	.56	.31	.24	.19	.18	.19	.34	.58	1.90	.83	.45	.35
IN.	.64	.35	.28	.22	.19	.21	.38	.67	2.11	.95	.51	.40
AC-FT	632	344	273	217	187	210	377	653	2070	935	503	388

CAL YR 1976 TOTAL 9238.7 MEAN 25.2 MAX 144 MIN 3.0 CFSM 1.37 IN 18.66 AC-FT 18320
WTR YR 1977 TOTAL 3424.1 MEAN 9.38 MAX 72 MIN 3.0 CFSM .51 IN 6.92 AC-FT 6790

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1970 to current year.
INSTRUMENTATION.--Temperature recorder since June 13, 1970.
EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 16.0°C July 11, 1973; minimum, 0.0°C several days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.5°C June 24, 25, July 23, 24, Aug. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)
NOV												
07...	1050	7.3	97	--	12.0	2.0	--	--	--	--	--	--
DEC												
15...	0934	4.4	117	--	-11.5	.5	--	--	--	--	--	--
MAR												
13...	1030	3.5	127	--	1.5	1.5	--	--	--	--	--	--
MAY												
21...	1050	9.9	86	--	10.0	4.0	--	--	--	--	--	--
JUN												
14...	1330	35	50	7.7	13.0	9.0	9.8	106	<1.0	85	84	>100
JUL												
12...	1845	13	69	7.9	17.0	13.5	8.2	98	--	22	--	--
AUG												
17...	1300	7.8	96	7.1	25.5	12.5	8.5	100	.7	315	81	B298
SEP												
26...	1345	6.8	101	7.7	22.0	6.5	9.8	99	<1.0	141	85	62

B Results based on count outside of ideal colony count range.

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
NOV												
07...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
15...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
13...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
14...	22	0	8.3	.3	1.8	15	.2	.2	29	0	24	.9
JUL												
12...	33	3	12	.8	2.3	13	.2	.3	37	0	30	.7
AUG												
17...	40	0	14	1.3	3.1	14	.2	.3	61	0	50	7.8
SEP												
26...	36	0	13	.9	1.6	9	.1	.2	44	0	36	1.4

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
NOV												
07...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
15...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
13...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
14...	3.6	.4	.2	7.6	38	.05	3.61	.19	.01	.05	.15	2.2
JUL												
12...	8.3	.5	.1	9.6	53	.07	1.86	.03	.01	.01	.03	.9
AUG												
17...	4.5	.6	.2	12	67	.09	1.41	.04	.03	.01	.03	.6
SEP												
26...	2.7	.3	.2	9.5	51	.07	.94	.02	.01	.00	.00	.6

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
JUN 14...	0	0	0	0	4	0	10	0	0	70	3
JUL 12...	20	0	0	6	320	0	0	0	1	30	8
AUG 17...	20	0	1	0	10	1	0	0	1	40	16
SEP 26...	20	100	0	0	0	1	0	0	1	60	8

DATE	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JUN 14...	2	0	.0	4	6	0	0	80	1.1	0
JUL 12...	2	0	.0	7	2	0	0	140	14	0
AUG 17...	0	4	.0	8	3	0	0	140	.9	4
SEP 26...	3	0	.0	10	5	0	0	140	.4	10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
JUN 14...	1330	4.0	6	.57
JUL 12...	1845	13.5	<1	--
AUG 17...	1300	12.5	1	.02
SEP 26...	1345	6.5	<1	--

13297440 LITTLE BOULDER CREEK ABOVE BAKER LAKE, NEAR CLAYTON, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.0	5.0	11.5	8.5	13.5	11.0	13.5	11.0	9.0	7.0
2	---	---	6.5	5.0	11.0	7.5	13.0	12.0	13.5	12.0	10.5	8.0
3	---	---	6.0	4.5	10.5	7.0	12.5	10.0	14.5	13.0	10.5	9.0
4	---	---	4.0	2.5	11.5	7.5	11.5	9.5	14.0	12.0	11.5	9.0
5	---	---	3.0	1.0	10.5	7.5	12.0	7.5	13.5	11.5	11.5	9.5
6	---	---	3.0	2.0	10.0	7.5	12.0	8.5	12.5	11.0	12.0	10.0
7	---	---	3.5	2.5	9.5	7.5	12.5	8.0	13.0	12.0	12.0	10.0
8	---	---	4.0	3.0	11.0	7.5	12.5	9.5	12.5	11.0	11.5	9.5
9	---	---	5.0	3.5	10.5	8.5	12.5	10.0	12.5	10.0	10.5	7.5
10	---	---	5.5	4.0	10.0	7.5	12.5	9.0	12.5	11.0	9.5	7.0
11	---	---	5.0	3.5	9.5	8.0	13.0	9.5	13.0	11.0	10.0	8.0
12	---	---	7.0	4.0	10.0	6.5	13.5	10.5	13.5	11.5	9.5	7.5
13	---	---	7.5	4.5	10.5	8.0	13.5	10.5	13.5	11.5	9.0	7.0
14	---	---	7.5	5.5	9.0	8.0	12.5	10.0	13.5	11.5	9.5	7.5
15	---	---	6.5	4.0	11.0	6.0	13.5	10.0	13.0	11.0	9.5	8.5
16	6.0	2.5	6.0	4.5	11.0	7.5	14.0	11.5	13.5	11.5	9.5	7.0
17	5.0	2.0	4.5	3.5	11.0	7.0	14.0	11.5	13.5	12.5	7.5	7.0
18	4.5	1.5	5.0	3.5	11.0	8.5	14.0	12.0	14.0	13.5	7.0	5.5
19	4.5	1.5	5.5	3.5	10.0	8.5	14.0	12.0	14.0	11.0	7.5	6.5
20	5.0	1.5	5.5	3.5	10.0	7.5	14.0	12.0	14.0	12.5	7.5	6.5
21	5.5	2.5	6.0	4.0	11.5	8.0	13.5	12.5	13.5	13.0	7.0	6.0
22	7.0	2.5	6.5	4.5	12.5	9.0	13.5	12.0	13.5	11.5	5.5	4.0
23	7.5	3.5	6.5	6.0	13.0	10.0	14.5	12.5	13.0	11.0	4.5	3.0
24	6.0	3.5	7.5	5.5	14.5	10.0	14.5	13.0	12.5	11.0	5.5	4.5
25	6.0	3.5	7.0	5.5	14.5	11.5	14.0	10.5	12.0	10.5	6.0	5.0
26	7.0	4.5	6.0	4.5	14.0	11.5	14.0	12.0	10.5	9.5	6.5	5.0
27	6.5	3.5	6.0	5.0	14.0	11.0	14.0	11.5	9.0	7.0	7.0	5.5
28	6.5	5.0	6.0	3.5	14.0	10.0	14.0	11.5	9.0	7.0	7.5	6.5
29	6.5	4.0	5.5	3.5	14.0	11.0	14.0	11.5	11.0	9.0	7.5	7.0
30	6.5	4.5	7.5	3.5	13.5	9.5	13.0	10.0	11.0	9.0	7.0	5.0
31	---	---	10.5	6.0	---	---	13.5	10.5	9.0	7.0	---	---
MONTH	7.5	1.5	10.5	1.0	14.5	6.0	14.5	7.5	14.5	7.0	12.0	3.0
YEAR	14.5	1.0										

13297480 BIG BOULDER CREEK AT LIVINGSTON MILL, NEAR CLAYTON, ID

LOCATION.--Lat 44°07'47", long 114°31'33", in NW¼NE¼ sec.12, T.9 N., R.16 E. (unsurveyed), Custer County, Hydrologic Unit 17060201, 0.4 mi (0.6 km) upstream from mouth of Jim Creek, 5.2 mi (8.4 km) upstream from mouth, and 10 mi (16.1 km) southwest of Clayton.
DRAINAGE AREA.--12.7 mi² (32.9 km²).
PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)
JUN 14...	1100	33	48	7.9	18.0	5.5	9.6	99	<1.0	<1	<1	B1
JUL 12...	1130	15	65	7.5	14.5	10.0	8.7	101	--	94	--	--
AUG 18...	1500	9.2	72	7.3	20.0	14.0	8.5	107	.6	B17	B1	140
SEP 27...	1445	7.1	88	7.9	16.5	6.5	9.4	99	<1.0	60	<1	B16

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
JUN 14...	21	1	8.1	.2	1.2	11	.1	.2	24	0	20	.5
JUL 12...	37	13	14	.4	1.5	8	.1	.2	29	0	24	1.5
AUG 18...	36	0	13	.9	1.5	8	.1	.3	49	0	40	3.9
SEP 27...	40	8	14	1.1	1.6	8	.1	.2	39	0	32	.8

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
JUN 14...	3.6	.3	.2	6.3	32	.04	2.85	.02	.00	.04	.12	1.5
JUL 12...	4.2	.3	.1	7.1	42	.06	1.70	.01	.00	.01	.03	.7
AUG 18...	7.5	.3	.2	8.7	57	.08	1.42	.01	.02	.01	.03	.4
SEP 27...	7.1	.3	.2	9.3	53	.07	1.02	.03	.00	.01	.03	.5

B Results based on count outside of ideal colony count range.

13297480 BIG BOULDER CREEK AT LIVINGSTON MILL, NEAR CLAYTON, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
JUN 14...	20	0	1	0	2	2	0	0	0	70	26
JUL 12...	10	0	0	0	0	1	0	0	1	30	12
AUG 18...	10	0	1	0	4	1	10	0	0	20	23
SEP 27...	30	0	1	0	8	2	0	1	2	60	19

DATE	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JUN 14...	2	0	.0	5	6	2	0	50	.8	0
JUL 12...	2	0	.0	8	3	0	5	70	12	0
AUG 18...	0	0	.0	9	3	0	0	90	.8	4
SEP 27...	0	0	.0	10	4	2	0	60	1.3	10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
JUN 14...	1100	5.5	2	.18
JUL 12...	1130	10.0	<1	--
AUG 18...	1500	14.0	2	.05
SEP 27...	1445	6.5	<1	--

13297485 JIM CREEK AT LIVINGSTON MILL, NEAR CLAYTON, ID

LOCATION.--Lat 44°07'54", long 114°31'43", in SW¼SW¼ sec.1, T.9 N., R.16 E. (unsurveyed), Custer County, Hydrologic Unit 17060201, 0.2 mi (0.3 km) upstream from crossing at Livingston Mill, 0.6 mi (0.9 km) upstream from mouth, and 10 mi (16.1 km) southwest of Clayton.

DRAINAGE AREA.--3.4 mi² (8.9 km²).

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)
JUN 14...	0940	3.7	148	8.0	15.0	5.5	9.6	99	<1.0	<1	B2	B2
JUL 12...	1100	2.2	170	8.2	14.5	8.5	8.6	96	--	45	--	--
AUG 18...	1345	1.7	167	7.4	17.5	10.5	8.4	99	.6	55	B9	B249
SEP 27...	1410	1.5	172	8.3	13.5	6.5	9.3	99	<1.0	127	B6	B20

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
JUN 14...	75	21	26	2.4	1.4	4	.1	.7	66	0	54	1.1
JUL 12...	81	17	28	2.7	3.5	9	.2	.6	78	0	64	.8
AUG 18...	85	11	28	3.5	1.8	4	.1	.6	90	0	74	5.7
SEP 27...	82	14	28	3.0	1.6	4	.1	.6	83	0	68	.7

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
JUN 14...	21	.7	.2	12	99	.13	.99	.27	.05	.02	.06	1.0
JUL 12...	20	.5	.1	13	107	.15	.64	.05	.02	.03	.09	.8
AUG 18...	19	.6	.1	15	113	.15	.52	.00	.06	.04	.12	.3
SEP 27...	17	.5	.1	15	107	.15	.43	.02	.02	.03	.09	.6

B Results based on count outside of ideal colony count range.

13297485 JIM CREEK AT LIVINGSTON MILL, NEAR CLAYTON, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
JUN 14...	10	0	2	0	7	3	10	0	2	60	6
JUL 12...	0	0	1	0	0	3	0	0	1	40	13
AUG 18...	0	100	1	0	4	2	0	1	1	10	16
SEP 27...	30	0	2	0	20	8	10	0	1	50	60

DATE	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JUN 14...	2	10	.0	1	7	4	0	60	2.2	220
JUL 12...	2	0	.0	2	7	0	0	70	2.6	110
AUG 18...	0	0	.0	0	4	1	0	90	2.8	50
SEP 27...	3	0	.0	3	5	0	0	60	3.0	50

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
JUN 14...	0940	5.5	20	.20
JUL 12...	1100	8.5	6	.04
AUG 18...	1345	10.5	9	.04
SEP 27...	1410	6.5	2	.01

13298000 EAST FORK SALMON RIVER NEAR CLAYTON, ID

LOCATION.--Lat 44°13'29", long 114°17'06", in NW¼NE¼SW¼ sec.1, T.10 N., R.18 E., Custer County, Hydrologic Unit 17060201, on right bank at county road crossing, 6 mi (9.7 km) southeast of Clayton, and at mile 3.9 (6.3 km).

DRAINAGE AREA.--532 mi^2 (1,379 km^2).

PERIOD OF RECORD.--September 1928 to September 1939 (gage heights and discharge measurements only), May 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,510 ft or 1,680 m (from topographic map). September 1928 to September 1939, nonrecording gage at present site and at datum approximately 5 ft (1.5 m) higher.

REMARKS.--Records good except those for winter period, which are poor. No regulation. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--15 years (1929-39, 1974-77), 226 ft^3/s (6.400 m^3/s), 5.77in/yr (147 mm/yr), 163,700 acre-ft/yr (202 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft^3/s (114 m^3/s) June 17, 1974 (gage height, 10.60 ft or 3.231 m, present datum), from rating curve extended above 1,400 ft^3/s minimum discharge observed, 29 ft^3/s (0.821 m^3/s) Dec. 3, 1928; minimum gage height observed, 0.38 ft or 0.116 m (datum then in use) Nov. 23, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft^3/s (43.6 m^3/s) June 8 (gage height, 8.90 ft or 2.713 m), only peak above base of 1,200 ft^3/s (34.0 m^3/s); minimum, 30 ft^3/s (0.850 m^3/s) Nov. 27 (gage height, 6.07 ft or 1.850 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 29 to Dec. 19)

6.2	41	7.0	193
6.3	51	7.5	385
6.4	64	8.0	676
6.6	96	8.6	1,190
6.8	138		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	157	93	72	94	82	71	141	286	181	161	115
2	228	156	92	71	87	80	72	143	676	167	151	113
3	246	153	95	74	82	79	72	136	476	164	146	105
4	241	151	97	75	109	77	75	122	602	282	141	101
5	236	149	84	71	91	75	85	113	757	424	136	100
6	237	148	85	70	94	82	92	111	927	302	141	96
7	228	146	92	74	94	80	98	111	962	260	136	92
8	220	143	91	74	98	80	107	105	1180	228	175	85
9	214	142	95	74	92	82	122	105	1050	215	172	85
10	205	139	85	74	79	80	107	111	1170	209	151	84
11	201	134	91	70	84	72	101	103	919	199	146	82
12	194	125	87	74	79	82	101	100	690	184	136	82
13	195	104	85	74	82	80	100	100	570	172	126	82
14	189	104	82	70	77	72	98	105	539	161	117	80
15	185	121	85	70	75	71	85	131	460	143	117	75
16	181	125	84	70	77	80	89	141	424	136	107	79
17	179	128	79	73	77	84	91	151	380	138	105	91
18	170	129	75	76	79	80	85	143	353	138	92	94
19	166	126	74	77	75	79	77	138	306	129	91	89
20	167	117	75	77	75	71	74	136	366	131	87	84
21	168	113	74	76	77	80	79	131	348	146	91	87
22	166	122	74	76	75	80	71	122	310	178	96	94
23	164	116	80	80	75	79	80	122	306	205	96	94
24	163	116	80	84	71	79	98	164	286	242	94	98
25	170	120	77	87	68	77	109	190	275	471	96	94
26	165	95	84	94	84	75	124	193	249	327	101	87
27	155	46	84	100	74	77	136	190	239	267	101	85
28	159	55	76	87	85	72	133	175	222	225	96	87
29	159	92	79	82	---	72	136	164	209	190	85	91
30	158	99	74	84	---	72	138	148	196	175	87	96
31	154	---	71	101	---	71	---	141	---	167	100	---
TOTAL	5892	3671	2579	2411	2309	2402	2906	4186	15733	6576	3677	2727
MEAN	190	122	83.2	77.8	82.5	77.5	96.9	135	524	212	119	90.9
MAX	246	157	97	101	109	84	138	193	1180	471	175	115
MIN	154	46	71	70	68	71	71	100	196	129	85	75
AC-FT	11690	7280	5120	4780	4580	4760	5760	8300	31210	13040	7290	5410

CAL YR 1976 TOTAL 119032 MEAN 325 MAX 1440 MIN 46 AC-FT 236100
WTR YR 1977 TOTAL 55069 MEAN 151 MAX 1180 MIN 46 AC-FT 109200

NOTE.--No gage-height record Dec. 20 to Jan. 27.

13302500 SALMON RIVER AT SALMON, ID

LOCATION.--Lat 45°11'00", long 113°53'40", in NE¼NE¼ sec.6, T.21 N., R.22 E., Lemhi County, Hydrologic Unit 17060203, on left bank 1,000 ft (300 m) downstream from island, 0.4 mi (0.6 km) upstream from Lemhi River, 0.5 mi (0.8 km) downstream from highway bridge at Salmon, and at mile 258.9 (416.6 km).

DRAINAGE AREA.--3,760 mi² (9,740 km²), approximately. Mean altitude, 7,380 ft (2,250 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1912 to September 1916, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1043: Drainage area. WSP 1317: 1916.

GAGE.--Water-stage recorder. Datum of gage is 3,911.14 ft (1,192.115 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 21, 1929, nonrecording gage at site 700 ft (210 m) upstream at different datum.

REMARKS.--Records good. Diversions above station for irrigation of about 83,800 acres (33,900 hm²) of which about 900 acres (360 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--62 years, 1,973 ft³/s (55.88 m³/s), 1,429,000 acre-ft/yr (1,762 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft³/s (501 m³/s) June 17, 1974 (gage height, 8.62 ft or 2.643 m); maximum gage height, 9.62 ft (2.932 m) Jan. 8, 1942 (ice jam); minimum discharge, 242 ft³/s (6.85 m³/s) Jan. 8, 1937 (gage height, 1.50 ft or 0.457 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,360 ft³/s (95.2 m³/s) June 11 (gage height, 3.51 ft or 1.070 m); minimum, 546 ft³/s (15.5 m³/s) Aug. 16 (gage height, 0.91 ft or 0.277 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 13-29, Jan. 1-11, Jan. 25 to Feb. 3)

0.9	540	2.5	1,970
1.5	970	3.5	3,340

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1760	1540	1280	1090	1150	1140	1030	761	1220	962	946	763
2	1730	1610	1310	1060	1210	1120	1030	803	1330	954	890	762
3	1760	1630	1320	1050	1230	1100	994	796	1720	978	854	752
4	1740	1610	1340	1040	1110	1090	1010	826	1650	1070	776	740
5	1750	1590	1410	1000	1110	1090	1010	818	1830	1280	678	727
6	1740	1580	1330	950	1130	1060	1040	796	2070	1400	706	680
7	1710	1590	1310	960	1120	1100	1100	761	2320	1240	736	644
8	1690	1580	1420	970	1130	1110	1180	782	2660	1190	756	621
9	1700	1560	1420	990	1130	1100	1240	803	2910	1140	787	612
10	1660	1550	1400	1000	1170	1100	1480	810	3070	1090	798	620
11	1630	1540	1350	1030	1150	1070	1200	826	3220	1010	751	623
12	1600	1520	1330	954	1150	1060	1110	842	3030	978	711	618
13	1580	1460	1350	1100	1160	1100	1070	803	2750	954	677	621
14	1560	1380	1250	1260	1170	1100	1070	803	2560	946	644	616
15	1560	1340	1200	1250	1130	1040	1000	818	2470	946	641	636
16	1550	1470	1150	1220	1130	1030	946	898	2430	898	614	686
17	1550	1520	1150	1250	1130	1060	938	962	2210	775	591	790
18	1550	1540	1100	1200	1140	1090	978	1000	1930	789	594	880
19	1550	1520	1040	1250	1140	1060	874	978	1760	796	589	920
20	1560	1490	1050	1210	1140	1060	842	970	1730	747	578	952
21	1560	1430	1010	1170	1140	1040	747	978	1810	898	578	976
22	1560	1410	1010	1170	1130	1070	677	962	1720	930	586	1020
23	1590	1450	1090	1160	1120	1070	644	962	1600	938	570	1030
24	1610	1410	1130	1050	1100	1070	663	1020	1480	978	557	1030
25	1600	1410	1160	1100	1080	1060	677	1360	1300	1350	568	1060
26	1620	1420	1200	1040	1060	1030	684	1540	1260	1590	595	1140
27	1610	1280	1200	1010	1090	1030	719	1520	1170	1340	667	1110
28	1600	1100	1130	1030	1080	1030	747	1500	1080	1180	687	1090
29	1610	1080	1150	1080	---	1020	726	1460	1030	1040	684	1080
30	1620	1190	1010	1100	---	1010	740	1390	978	954	696	1130
31	1610	---	1000	1140	---	1030	---	1290	---	938	728	---
TOTAL	50580	43900	37710	33944	31730	33160	28221	30838	58358	32279	21233	24933
MEAN	1632	1463	1216	1095	1133	1070	941	995	1945	1041	685	831
MAX	1760	1630	1420	1260	1230	1140	1480	1540	3220	1590	946	1140
MIN	1550	1080	1000	954	1060	1010	644	761	978	747	557	612
AC-FT	100300	87080	74800	67330	62940	65810	55980	61170	115800	64030	42120	49450

CAL YR 1976 TOTAL 877860 MEAN 2399 MAX 9380 MIN 860 AC-FT 1741000
WTR YR 1977 TOTAL 426906 MEAN 1170 MAX 3220 MIN 557 AC-FT 846800

13302500 SALMON RIVER AT SALMON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
NOV								
04...	1715	1570	231	8.7	12.5	10.0	120	0
DEC								
18...	0930	1250	273	--	-4.0	.0	--	--
JAN								
29...	1630	1140	251	--	-.5	.0	--	--
MAR								
09...	1300	1110	249	--	7.0	4.5	--	--
APR								
17...	0915	970	225	--	6.0	8.0	--	--
MAY								
20...	1100	962	266	--	14.5	11.5	--	--
JUN								
25...	1020	1380	235	--	24.0	19.0	--	--
AUG								
06...	0950	711	323	--	18.0	16.0	--	--
SEP								
15...	1140	625	* 331	7.9	18.0	15.0	150	4

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV									
04...	33	7.8	10	16	.4	1.5	140	115	15
DEC									
18...	--	--	--	--	--	--	--	--	--
JAN									
29...	--	--	--	--	--	--	--	--	--
MAR									
09...	--	--	--	--	--	--	--	--	--
APR									
17...	--	--	--	--	--	--	--	--	--
MAY									
20...	--	--	--	--	--	--	--	--	--
JUN									
25...	--	--	--	--	--	--	--	--	--
AUG									
06...	--	--	--	--	--	--	--	--	--
SEP									
15...	41	12	15	17	.5	2.4	180	150	32

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV								
04...	3.7	.4	13	153	.21	649	.01	.01
DEC								
18...	--	--	--	--	--	--	--	--
JAN								
29...	--	--	--	--	--	--	--	--
MAR								
09...	--	--	--	--	--	--	--	--
APR								
17...	--	--	--	--	--	--	--	--
MAY								
20...	--	--	--	--	--	--	--	--
JUN								
25...	--	--	--	--	--	--	--	--
AUG								
06...	--	--	--	--	--	--	--	--
SEP								
15...	5.2	.6	17	214	.29	361	.02	.01

* Not a field determination.

13305000 LEMHI RIVER NEAR LEMHI, ID

LOCATION.--Lat 44°56'24", long 113°38'16", in NW¼NE¼ sec.32, T.19 N., R.24 E., Lemhi County, Hydrologic Unit 17060204, on right bank 35 ft (10.7 m) upstream from bridge on State Highway 28, 1.4 mi (2.3 km) south of Tendoy, 1.8 mi (2.9 km) upstream from Agency Creek, 6.2 mi (10.0 km) north of Lemhi, and at mile 28.8 (46.3 km).

DRAINAGE AREA.--895 mi² (2,320 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1938 to August 1939, April 1955 to September 1963, water years 1964-67 (annual maximum), August 1967 to current year.

REVISED RECORDS.--WSP 1397: 1939.

GAGE.--Water-stage recorder. Altitude of gage is 4,960 ft or 1,512 m (from topographic map). Prior to Aug. 25, 1967, at site 1.5 mi (2.4 km) upstream at different datum. November 1938 to August 1939, nonrecording gage, Apr. 29, 1955, to Sept. 30, 1963, nonrecording gage and supplemental crest-stage gage, Oct. 1, 1963, to Aug. 24, 1967, crest-stage gage only.

REMARKS.--Records good except those for December and January, which are fair. State Fish Hatchery on Hayden Creek several miles upstream since fall of 1966 may affect maximums and minimums. Diversions above station for irrigation of about 25,500 acres (10,300 hm²) of which about 200 acres (811 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--18 years (1956-63, 1968-77), 280 ft³/s (7.930 m³/s), 202,900 acre-ft/yr (250 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft³/s (56.4 m³/s) July 6, 1975 (gage height, 6.39 ft or 1.948 m in gage well, 6.72 ft or 1.948 m from outside gage); minimum, 46 ft³/s (1.30 m³/s) Apr. 30, 1977 (gage height, 2.53 ft or 0.771 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 434 ft³/s (12.3 m³/s) June 9, 10 (gage height, 4.20 ft or 1.280 m in gage well, 4.41 ft or 1.344 m from outside gage); minimum, 46 ft³/s (1.30 m³/s) Apr. 30 (gage height, 2.53 ft or 0.771 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 28-30, Dec. 5-10, 20-23, Dec. 28 to Jan. 16, Jan. 30 to Feb. 9)

2.6	50	3.5	196
2.9	82	4.0	349
3.2	129	4.5	570

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	342	327	283	245	240	262	247	51	176	115	171	103
2	345	331	283	260	240	259	247	56	230	116	153	97
3	365	338	283	260	240	256	244	56	233	118	160	92
4	384	345	287	260	245	259	247	54	244	151	164	85
5	384	349	270	235	250	256	259	54	268	209	151	77
6	392	353	245	245	250	259	287	53	287	176	162	74
7	405	349	270	260	250	259	300	53	303	156	160	77
8	405	345	270	240	250	259	303	54	300	149	160	80
9	422	345	245	230	255	262	317	57	365	145	167	85
10	405	342	275	250	253	253	283	54	380	156	164	85
11	384	342	293	260	253	244	265	57	331	156	153	78
12	368	324	287	260	256	259	253	63	310	147	120	82
13	361	300	290	260	259	259	244	69	290	141	99	80
14	349	293	280	260	259	253	242	80	293	135	82	74
15	342	306	274	255	259	247	233	102	280	109	92	88
16	331	331	290	255	259	253	233	133	262	97	95	97
17	324	342	280	255	262	262	239	191	244	89	83	143
18	320	349	274	255	268	253	225	196	222	82	88	149
19	313	342	259	255	265	253	214	156	199	76	82	143
20	310	331	240	255	268	250	206	135	225	64	76	153
21	313	306	245	255	271	253	206	124	239	83	78	169
22	310	324	260	230	265	256	199	120	193	125	82	188
23	310	320	260	220	262	271	196	122	169	133	77	204
24	313	320	256	225	253	280	178	131	156	191	74	209
25	313	331	259	245	247	268	158	173	135	357	74	225
26	310	293	265	240	259	259	143	178	135	268	88	239
27	310	230	271	240	253	259	133	186	133	233	95	242
28	313	240	240	230	262	247	115	188	124	214	90	236
29	317	260	245	230	---	247	83	181	115	209	92	225
30	324	265	255	230	---	244	60	176	115	206	95	214
31	324	---	255	235	---	250	---	153	---	196	99	---
TOTAL	10708	9573	8319	7635	7153	7951	6559	3456	6956	4802	3526	4093
MEAN	345	319	268	246	255	256	219	111	232	155	114	136
MAX	422	353	293	260	271	280	317	196	380	357	171	242
MIN	310	230	240	220	240	244	60	51	115	64	74	74
AC-FT	21240	18990	16500	15140	14190	15770	13010	6850	13800	9520	6990	8120

CAL YR 1976 TOTAL 137239 MEAN 375 MAX 956 MIN 171 AC-FT 272200
WTR YR 1977 TOTAL 80731 MEAN 221 MAX 422 MIN 51 AC-FT 160100

13305000 LEMHI RIVER NEAR LEMHI, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
NOV 06...	1155	353	371	8.6	17.5	6.5	190	4
DEC 16...	1445	277	413	--	9.0	2.0	--	--
JAN 29...	0950	214	397	--	-6.0	.5	--	--
MAR 09...	1015	264	412	--	9.5	1.0	--	--
APR 17...	1350	232	387	--	17.0	8.0	--	--
MAY 20...	1340	139	465	9.0	20.5	12.5	260	59
JUN 25...	1430	132	413	--	32.5	15.5	--	--
AUG 06...	1155	169	465	--	17.0	13.0	--	--
SEP 15...	1425	13	* 521	8.1	17.0	13.0	250	21

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 06...	46	19	16	15	.5	3.0	230	189	29
DEC 16...	--	--	--	--	--	--	--	--	--
JAN 29...	--	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--
APR 17...	--	--	--	--	--	--	--	--	--
MAY 20...	68	21	2.0	2	.1	3.8	240	200	47
JUN 25...	--	--	--	--	--	--	--	--	--
AUG 06...	--	--	--	--	--	--	--	--	--
SEP 15...	64	22	23	16	.6	3.9	280	230	53

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 06...	9.2	.2	19	255	.35	243	.13	.04
DEC 16...	--	--	--	--	--	--	--	--
JAN 29...	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--
APR 17...	--	--	--	--	--	--	--	--
MAY 20...	13	.2	20	294	.40	110	.05	.05
JUN 25...	--	--	--	--	--	--	--	--
AUG 06...	--	--	--	--	--	--	--	--
SEP 15...	12	.3	25	341	.46	12.0	.02	.05

* Not a field determination.

13306500 PANTHER CREEK NEAR SHOUP, ID

LOCATION.--Lat 45°18'22", long 114°23'31", in sec.19, T.23 N., R.18 E., Lemhi County, Hydrologic Unit 17060203, Salmon National Forest, on right bank 100 ft (30 m) downstream from bridge on private road, at mile 1.0 (1.6 km), and 7 mi (11 km) southwest of Shoup.

DRAINAGE AREA.--529 mi² (1,370 km²). Mean altitude, 7,030 ft (2,143 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to September 1977 (discontinued).

REVISED RECORDS.--WSP 1063: 1945. WRD Idaho 1907: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 3,264.96 ft (995.160 m) above mean sea level, unadjusted (planetable survey). Prior to Nov. 6, 1959, nonrecording gage 75 ft (23 m) upstream at datum 0.94 ft (0.287 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 1,100 acres or 445 hm² (1966 determination).

AVERAGE DISCHARGE.--33 years, 258 ft³/s (7.307 m³/s) 6.62 in/yr (168 mm/yr), 186,900 acre-ft/yr (230 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,050 ft³/s (86.4 m³/s) June 16, 1974 (gage height, 5.95 ft or 1.814 m); minimum observed, 22 ft³/s (0.62 m³/s) Nov. 17 1958 (gage height, 0.57 ft or 0.174 m, present datum).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 612 ft³/s (17.3 m³/s) June 11 (gage height, 2.63 ft or 0.802 m), no peak above base of 1,200 ft³/s (34.0 m³/s); minimum, 42 ft³/s (1.189 m³/s) Nov. 27 (gage height, 0.69 ft or 0.210 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 15, 16, 22-25, Nov. 29 to Dec. 16, Jan. 29 to Feb. 23)

0.7	43	2.0	336
1.0	80	2.6	593
1.5	181	3.0	798

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	118	80	73	75	79	82	219	318	172	106	97
2	134	120	80	74	74	77	82	249	397	177	103	91
3	146	132	80	75	74	77	82	234	377	183	102	87
4	136	123	84	76	73	77	85	200	397	211	109	85
5	133	117	75	75	73	73	91	173	425	203	105	83
6	136	116	67	68	73	77	103	166	430	176	109	81
7	132	112	78	74	73	79	114	156	455	165	110	80
8	130	114	80	74	73	79	132	161	430	156	111	78
9	129	114	80	72	73	80	163	158	397	151	118	78
10	128	112	80	73	74	77	128	171	438	160	105	79
11	126	110	80	77	74	71	116	171	588	150	100	79
12	127	98	75	81	74	79	120	158	551	142	96	79
13	125	79	81	81	76	80	124	166	482	139	93	79
14	124	76	76	81	73	73	120	178	500	133	90	79
15	122	95	74	81	74	67	108	184	459	126	90	80
16	121	115	78	79	74	79	124	178	409	119	87	98
17	120	118	74	79	75	85	136	189	377	113	85	120
18	116	112	71	80	75	77	122	181	343	110	86	112
19	111	105	66	80	74	80	116	178	318	109	83	99
20	117	91	58	81	75	76	112	168	322	108	82	101
21	119	79	69	80	75	79	114	171	329	111	81	108
22	119	90	74	77	77	80	120	178	291	130	85	108
23	118	80	74	70	75	85	138	194	271	130	87	103
24	114	82	75	69	76	86	166	271	255	129	82	101
25	120	90	75	78	74	82	189	377	240	241	83	110
26	119	82	77	79	77	79	205	373	226	164	89	107
27	113	45	78	80	76	83	219	347	208	148	97	103
28	113	82	66	75	76	79	202	315	198	129	92	98
29	117	80	71	75	---	83	202	291	197	120	90	99
30	116	82	73	74	---	79	214	271	177	114	91	114
31	112	---	75	75	---	85	---	268	---	109	107	---
TOTAL	3826	2969	2324	2366	2085	2442	4031	6696	10795	4528	2954	2816
MEAN	123	99.0	75.0	76.3	74.5	78.8	134	216	360	146	95.3	93.9
MAX	146	132	84	81	77	86	219	377	588	241	118	120
MIN	111	45	58	68	73	67	82	156	177	108	81	78
CFSM	.23	.19	.14	.14	.14	.15	.25	.41	.68	.28	.18	.18
IN.	.27	.21	.16	.17	.15	.17	.28	.47	.76	.32	.21	.20
AC-FT	7590	5890	4610	4690	4140	4840	8000	13280	21410	8980	5860	5590

CAL YR 1976 TOTAL 134906 MEAN 369 MAX 2120 MIN 45 CFSM .70 IN 9.49 AC-FT 267600
WTR YR 1977 TOTAL 47832 MEAN 131 MAX 588 MIN 45 CFSM .25 IN 3.36 AC-FT 94870

NOTE.--No gage-height record Dec. 17 to Jan. 28.

13306500 PANTHER CREEK NEAR SHOUP, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972, 1974 to current year (discontinued).

REMARKS.--Miscellaneous chemical data published for water year 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 05...	1700	117	88	8.4	13.0	8.0	--	37	0
DEC 17...	0935	79	119	--	-10.5	.0	0	--	--
JAN 28...	1040	93	109	--	-13.5	.0	0	--	--
MAR 08...	1435	80	110	--	12.0	4.0	3	--	--
APR 16...	1310	123	94	--	23.0	9.5	1	--	--
MAY 19...	1420	175	78	--	14.5	9.5	3	--	--
JUN 24...	1530	258	70	--	31.5	17.5	1	--	--
AUG 05...	1200	99	92	--	22.0	17.5	0	--	--
SEP 14...	1130	77	103	8.2	18.0	13.0	0	37	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 05...	11	2.2	5.8	25	.4	1.5	50	0	41
DEC 17...	--	--	--	--	--	--	--	--	--
JAN 28...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 14...	11	2.2	6.9	28	.5	1.8	48	0	39

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 05...	8.2	1.6	.5	14	70	.10	22.1	.01	.03
DEC 17...	--	--	--	--	--	--	--	--	--
JAN 28...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 14...	9.3	1.7	.6	18	76	.10	15.9	.01	.01

13307000 SALMON RIVER NEAR SHOUP, ID

LOCATION.--Lat 45°19'20", long 114°26'23", in NE¼SW¼ sec.14, T.23 N., R.17 E., Lemhi County, Hydrologic Unit 17060203, Salmon National Forest, on right bank 0.6 mi (1.0 km) upstream from Owl Creek, 2.3 mi (3.7 km) downstream from Panther Creek, 9 mi (14.5 km) southwest of Shoup, and at mile 207.8 (334.4 km).

DRAINAGE AREA.--6,270 mi² (16,240 km²), approximately. Mean altitude, 7,140 ft (2,176 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,153.7 ft (961.25 m) above mean sea level, unadjusted. Prior to Sept. 18, 1951, nonrecording gage at different sites approximately 1.3 mi (2.1 km) upstream at different datums.

REMARKS.--Records good. Diversions above station for irrigation of about 149,000 acres (60,300 hm²) of which about 1,200 acres (486 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--33 years, 3,065 ft³/s (51.34 m³/s), 2,221,000 acre-ft/yr (2,738 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,700 ft³/s (727.8 m³/s) June 18, 1974 (gage height, 13.13 ft or 4.002 m); minimum, 710 ft³/s (20.1 m³/s) Aug. 20, 21, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,470 ft³/s (155 m³/s) June 11 (gage height, 5.15 ft or 1.570 m); minimum, 788 ft³/s (22.3 m³/s) Aug. 21 (gage height, 1.68 ft or 0.512 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 3-7, Dec. 14 to Mar. 6)

1.6	720	3.0	2,240
2.0	1,090	4.0	3,610
2.5	1,630	5.1	5,380

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2630	2420	1880	1650	1750	1740	1530	1230	2230	1510	1340	1120
2	2580	2440	2090	1610	1850	1750	1530	1370	2360	1510	1270	1140
3	2600	2510	2100	1600	1880	1690	1520	1370	2680	1520	1200	1110
4	2640	2490	2120	1550	1820	1650	1520	1300	2790	1700	1170	1090
5	2580	2440	2150	1520	1810	1660	1550	1270	2860	1910	1090	1080
6	2590	2400	2120	1500	1800	1650	1620	1240	3100	2180	1090	1040
7	2560	2380	2120	1480	1810	1650	1740	1190	3390	2020	1140	960
8	2540	2370	2130	1470	1840	1670	1840	1180	3630	1840	1170	912
9	2550	2370	2170	1490	1840	1680	1990	1200	4080	1770	1240	880
10	2530	2360	2170	1500	1850	1650	2130	1250	4540	1790	1230	881
11	2480	2330	2050	1530	1850	1600	1940	1260	5300	1680	1230	883
12	2440	2290	1970	1610	1850	1570	1740	1270	5110	1570	1140	879
13	2410	2190	2010	1800	1840	1610	1670	1270	4610	1520	1050	874
14	2400	2050	1880	2010	1850	1610	1620	1270	4370	1420	985	888
15	2380	2050	1780	2010	1820	1540	1560	1280	4240	1350	962	898
16	2380	2200	1700	2010	1780	1530	1500	1310	3970	1270	946	996
17	2380	2270	1700	2000	1800	1560	1430	1480	3730	1200	880	1180
18	2400	2320	1690	2000	1800	1570	1450	1730	3340	1090	867	1410
19	2380	2290	1610	2010	1790	1570	1420	1710	2990	1060	842	1420
20	2380	2240	1570	1990	1790	1540	1290	1630	2960	1000	816	1480
21	2410	2170	1500	1910	1790	1550	1240	1610	2990	971	796	1540
22	2400	2130	1510	1910	1780	1550	1130	1600	2890	1010	823	1610
23	2400	2140	1640	1910	1750	1600	1100	1620	2650	1140	844	1640
24	2420	2130	1700	1800	1720	1630	1120	1810	2400	1250	814	1650
25	2450	2140	1760	1650	1700	1620	1210	2290	2260	2040	821	1710
26	2450	2100	1800	1550	1650	1580	1220	2790	2070	2450	838	1790
27	2450	1800	1790	1520	1690	1570	1220	2740	1920	2230	909	1780
28	2420	1580	1770	1590	1690	1540	1190	2630	1770	1930	985	1740
29	2440	1710	1740	1610	---	1530	1190	2580	1690	1730	1020	1710
30	2440	1820	1680	1660	---	1500	1210	2450	1560	1540	1020	1790
31	2440	---	1660	1720	---	1520	---	2290	---	1420	1090	---
TOTAL	76550	66130	57560	53170	50190	49680	44420	51220	94480	48621	31618	38081
MEAN	2469	2204	1857	1715	1793	1603	1481	1652	3149	1568	1020	1269
MAX	2640	2510	2170	2010	1880	1750	2130	2790	5300	2450	1340	1790
MIN	2380	1580	1500	1470	1650	1500	1100	1180	1560	971	796	874
AC-FT	151800	131200	114200	105500	99550	98540	88110	101600	187400	96440	62710	75530

CAL YR 1976 TOTAL 1445360 MEAN 3949 MAX 15500 MIN 1400 AC-FT 2867000
WTR YR 1977 TOTAL 661720 MEAN 1813 MAX 5300 MIN 796 AC-FT 1313000

13307000 SALMON RIVER NEAR SHOUP, ID--Continu

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 05...	1335	2430	251	8.8	11.0	10.0	--	120	0
DEC 17...	1315	1710	308	--	-4.5	.0	0	--	--
MAR 08...	1030	1670	261	--	5.0	3.0	2	--	--
APR 16...	1415	1480	248	--	21.0	15.5	3	--	--
MAY 19...	1025	1700	274	--	11.5	11.0	3	--	--
JUN 24...	1045	2450	247	--	27.5	20.0	0	--	--
AUG 05...	1410	1080	330	--	22.5	20.5	95	--	--
SEP 14...	1500	879	387	8.3	27.0	15.5	1	150	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV 05...	33	8.6	13	19	.5	1.9	150	0	123
DEC 17...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 14...	41	11	19	21	.7	2.8	180	0	150

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 05...	21	5.1	.4	15	172	.23	1130	.07	.03
DEC 17...	--	--	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--
SEP 14...	32	6.7	.5	15	217	.30	515	.03	.02

13309220 MIDDLE FORK SALMON RIVER AT MIDDLE FORK LODGE, NEAR YELLOW PINE, ID

LOCATION.--Lat 44°43'11", long 115°00'48", in NW¼SW¼SW¼ sec.16, T.16 N., R.12 E., Valley County, Hydrologic Unit 17060205, Boise National Forest, on left bank at Middle Fork Lodge, 325 ft (99.1 m) downstream from Middle Fork Lodge bridge, 0.4 mi (0.6 km) upstream from Thomas Creek, 1.8 mi (2.9 km) downstream from Marble Creek, 29 mi (46.7 km) southeast of Yellow Pine, and at mile 61.0 (98.1 km).

DRAINAGE AREA.--770 mi^2 (1,990 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,380 ft (1,340 m) from topographic map.

REMARKS.--Records good except those for December to February, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft^3/s (592 m^3/s) June 16, 1974 (gage height, 10.80 ft or 3.292 m); minimum, 221 ft^3/s (6.26 m^3/s) Nov. 28, 1977 (gage height, 1.30 ft or 0.396 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft^3/s (54.7 m^3/s) June 11 (gage height, 3.28 ft (1.000 m), no peak above base of 4,000 ft^3/s (113 m^3/s); minimum discharge, 221 ft^3/s (6.26 m^3/s) Nov. 28 (gage height, 1.30 ft or 1.000 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 16-22, July 29 to Aug. 25, Sept. 2-16, 19, 20;
stage-discharge relation affected by ice Dec. 4, 5, 7-11, Jan. 28 to Mar. 6)

1.3	215	2.5	1,090
1.6	392	3.0	1,600
2.0	670	3.5	2,210

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	610	437	400	425	420	403	1060	1070	574	360	457
2	700	655	424	410	415	410	395	1120	1230	595	348	405
3	723	677	425	420	400	410	395	1080	1180	625	342	373
4	723	655	470	430	400	405	416	981	1210	692	342	342
5	700	625	430	400	400	400	464	899	1240	723	330	330
6	700	610	387	390	400	420	519	858	1270	640	342	306
7	685	602	440	430	400	454	574	845	1350	574	348	306
8	677	595	450	400	400	443	705	850	1510	539	379	282
9	670	588	460	390	400	451	875	832	1370	525	379	271
10	670	581	450	410	400	418	781	887	1460	504	360	271
11	662	574	470	430	400	400	779	949	1860	497	360	260
12	655	560	437	450	410	424	835	869	1750	470	342	260
13	655	491	430	450	420	441	898	854	1520	457	318	249
14	647	484	437	450	410	398	822	895	1400	444	318	249
15	640	560	437	440	410	360	742	885	1350	430	330	260
16	640	617	430	450	410	392	837	860	1250	411	330	348
17	632	588	424	450	425	428	1020	870	1130	392	318	424
18	625	581	386	450	415	372	913	851	1060	379	294	430
19	610	574	348	440	420	408	807	881	1020	373	294	392
20	617	546	336	440	425	375	757	880	1030	379	282	411
21	625	504	373	430	430	403	763	853	997	405	282	470
22	617	534	420	420	420	403	835	843	918	411	294	477
23	617	504	410	390	415	424	911	930	847	491	282	430
24	610	504	420	390	410	426	970	1140	785	504	260	450
25	625	553	430	440	400	407	1050	1190	738	617	373	525
26	632	450	440	420	420	401	1140	1140	708	539	450	532
27	625	260	440	440	405	420	1140	1200	670	491	504	525
28	595	300	380	410	410	403	1060	1140	647	444	457	491
29	617	464	390	410	---	395	1070	1050	617	405	430	581
30	625	437	400	410	---	396	1050	988	595	379	424	777
31	617	---	410	415	---	406	---	960	---	373	491	---
TOTAL	20136	16288	13021	13105	11495	12713	23926	29652	33782	15282	10963	11884
MEAN	650	543	420	423	411	410	798	957	1126	493	354	396
MAX	723	677	470	450	430	454	1140	1200	1860	723	504	777
MIN	595	260	336	390	400	360	395	832	595	373	260	249
CFSM	.84	.71	.55	.55	.53	.53	1.04	1.24	1.46	.64	.46	.51
IN.	.97	.79	.63	.63	.56	.61	1.16	1.43	1.63	.74	.53	.57
AC-FT	39940	32310	25830	25990	22800	25220	47460	58810	67010	30310	21750	23570

CAL YR 1976 TOTAL 612652 MEAN 1674 MAX 8590 MIN 260 CFSM 2.17 IN 29.60 AC-FT 1215000
WTR YR 1977 TOTAL 212247 MEAN 581 MAX 1860 MIN 249 CFSM .76 IN 10.25 AC-FT 421000

NOTE.--No gage-height record Dec. 22 to Jan. 27.

13309220 MIDDLE FORK SALMON RIVER AT MIDDLE FORK LODGE, NEAR YELLOW PINE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1974-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPER-ATURE (DEG C)	TEMPER-ATURE (DEG C)	WEATHER	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT 28...	1125	634	96	--	2.0	2.0	0	--	--
DEC 10...	1100	454	99	6.2	-3.5	1.0	0	38	3
JAN 27...	1430	440	111	--	5.0	2.0	0	--	--
MAR 30...	1130	426	101	--	4.0	1.0	--	--	--
MAY 11...	1130	963	94	8.7	14.0	8.5	--	32	0
JUN 23...	1100	428	82	--	20.0	13.5	0	--	--
AUG 17...	1045	312	125	--	19.0	16.0	--	--	--

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT 28...	--	--	--	--	--	--	--	--	--
DEC 10...	13	1.3	4.1	19	.3	.5	43	0	35
JAN 27...	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--
MAY 11...	11	1.1	4.0	21	.3	.5	39	0	32
JUN 23...	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 28...	--	--	--	--	--	--	--	--	--
DEC 10...	5.1	.6	.5	11	57	.08	69.9	.04	.05
JAN 27...	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--
MAY 11...	11	1.0	.4	10	58	.08	151	.01	.00
JUN 23...	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--

13310700 SOUTH FORK SALMON RIVER NEAR KRASSEL RANGER STATION, ID

LOCATION.--Lat 44°59'30", long 115°43'30", in NE¼ sec.16, T.19 N., R.6 E., Valley County, Hydrologic Unit 17060208, Payette National Forest, on right bank 0.6 mi (1.0 km) upstream from Pitsum Creek, 1.4 mi (2.3 km) downstream from Krassel ranger station, 2 mi (3.2 km) upstream from mouth of East Fork of South Fork Salmon River, 20 mi (32 km) east of McCall, and at mile 39.2 (63.1 km).

DRAINAGE AREA.--330 mi² (850 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft or 1,143 m (from topographic map).

REMARKS.--Records good.

AVERAGE DISCHARGE.--11 years, 570 ft³/s (16.14 m³/s), 23.46 in/yr (596 mm/yr), 413,000 acre-ft/yr (509 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,740 ft³/s (191 m³/s) June 17, 1974 (gage height, 10.00 ft or 3.048 m); minimum, 38 ft³/s (1.08 m³/s) Nov. 27, 1976 (gage height, 1.11 ft or 0.338 m), result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 28, 1948, reached a discharge of 5,200 ft³/s (147 m³/s) by slope-area measurement at site 2.3 mi (3.7 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 778 ft³/s (22.0 m³/s) June 8 (gage height, 3.70 ft or 1.128 m), no peak above base of 1,500 ft³/s (42.5 m³/s); minimum, 38 ft³/s (1.08 m³/s) Nov. 27 (gage height, 1.11 ft or 0.338 m, result of freezeup).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 30, Dec. 3 to Feb. 24)

1.3	56	2.5	296
1.5	82	3.0	467
2.0	169	3.5	687

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	142	115	110	115	114	114	475	499	171	100	127
2	162	160	112	115	113	112	112	528	575	173	97	112
3	178	175	110	117	110	110	110	479	503	196	96	103
4	175	156	120	120	110	112	114	415	549	201	94	98
5	166	149	110	115	112	114	133	356	562	198	90	94
6	168	146	105	110	112	119	158	333	558	173	90	91
7	162	143	120	120	112	124	178	318	567	161	91	88
8	160	141	120	115	112	126	222	321	687	154	94	85
9	158	140	123	107	113	135	279	308	553	146	101	84
10	155	139	120	110	115	122	232	369	532	140	96	84
11	152	138	120	116	115	119	215	376	653	137	88	87
12	150	136	112	120	117	119	215	340	549	131	87	83
13	148	125	125	120	120	122	227	356	467	127	84	81
14	146	127	115	120	120	115	215	397	437	126	81	80
15	145	184	115	120	120	110	201	373	404	122	81	88
16	145	156	120	120	120	114	220	356	366	117	80	110
17	143	144	110	120	122	122	230	346	337	114	77	137
18	138	139	110	120	120	110	215	340	311	112	77	133
19	135	137	100	120	120	114	203	346	302	117	74	112
20	139	133	97	120	120	109	196	337	302	114	74	140
21	140	126	105	120	122	112	201	324	318	114	74	163
22	139	133	115	117	120	115	232	333	279	115	77	171
23	138	130	110	107	120	119	284	415	253	115	75	144
24	137	136	112	107	120	124	346	503	237	122	75	163
25	146	144	112	120	117	117	397	495	222	163	122	201
26	149	120	120	115	124	115	475	459	213	140	144	189
27	144	73	120	115	117	120	459	475	201	120	169	176
28	142	58	105	113	114	117	422	440	189	112	133	171
29	143	115	107	113	---	114	448	404	187	107	115	333
30	143	120	110	113	---	112	456	383	178	103	120	383
31	141	---	115	113	---	114	---	386	---	101	148	---
TOTAL	4649	4065	3510	3588	3272	3621	7509	12086	11990	4242	3004	4113
MEAN	150	136	113	116	117	117	250	390	400	137	96.9	137
MAX	178	184	125	120	124	135	475	528	687	201	169	383
MIN	135	58	97	107	110	109	110	308	178	101	74	80
CFSM	.46	.41	.34	.35	.36	.36	.76	1.18	1.21	.42	.29	.42
IN.	.52	.46	.40	.40	.37	.41	.85	1.36	1.35	.48	.34	.46
AC-FT	9220	8060	6960	7120	6490	7180	14890	23970	23780	8410	5960	8160

CAL YR 1976 TOTAL 213178 MEAN 582 MAX 3220 MIN 56 CFSM 1.76 IN 24.03 AC-FT 422800
WTR YR 1977 TOTAL 65649 MEAN 180 MAX 687 MIN 58 CFSM .55 IN 7.40 AC-FT 130200

13310700 SOUTH FORK SALMON RIVER NEAR KRASSEL RANGER STATION, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973, 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANFOUS DISCHARGF (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	WEATHER	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 20...	1245	139	60	--	11.0	2.0	0	--	--
NOV 30...	1316	130	75	6.7	1.0	.5	0	16	0
APR 06...	1455	163	59	--	23.0	9.0	--	--	--
MAY 10...	1540	397	40	8.7	22.5	9.5	1	12	0
JUN 21...	1615	313	39	--	26.5	16.5	1	--	--
AUG 02...	1455	99	60	--	27.5	19.5	1	--	--
SEP 13...	1350	80	67	7.9	16.5	14.5	0	--	--
28...	0815	176	50	7.6	8.0	9.5	3	14	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 20...	--	--	--	--	--	--	--	--	--
NOV 30...	5.8	.4	8.3	51	.9	.7	27	0	22
APR 06...	--	--	--	--	--	--	--	--	--
MAY 10...	4.3	.4	3.7	38	.5	.4	19	0	16
JUN 21...	--	--	--	--	--	--	--	--	--
AUG 02...	--	--	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--	--	--
28...	5.3	.3	5.4	44	.6	.5	26	0	21

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITF PLUS NITRATF (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 20...	--	--	--	--	--	--	--	--	--
NOV 30...	3.2	1.7	1.0	22	57	.08	20.0	.02	.03
APR 06...	--	--	--	--	--	--	--	--	--
MAY 10...	4.2	.6	.5	13	37	.05	39.7	.07	.01
JUN 21...	--	--	--	--	--	--	--	--	--
AUG 02...	--	--	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--	--	--
28...	1.8	.9	.7	15	43	.06	20.4	.01	.00

13313000 JOHNSON CREEK AT YELLOW PINE, ID

LOCATION.--Lat 44°57'44", long 115°29'58", in NE¼ sec.29, T.19 N., R.8 E., Valley County, Hydrologic Unit 17060208, Boise National Forest, on right bank 700 ft (213 m) upstream from mouth and 0.2 mi (0.3 km) southwest of Yellow Pine.

DRAINAGE AREA.--213 mi² (552 km²). Mean altitude, 7,170 ft (2,185 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,655.75 ft (1,419.073 m) above mean sea level. Prior to July 19, 1977, at site 385 ft (117 m) upstream at datum 1.95 ft (0.594 m) higher.

REMARKS.--Records good. Small diversion from Johnson Creek basin to Deadwood River basin (see REMARKS for sta 13236000).

AVERAGE DISCHARGE.--49 years, 350 ft³/s (9.91 m³/s), 22.31 in/yr (567 mm/yr), 253,600 acre-ft/yr (313 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,230 ft³/s (176 m³/s) June 17, 1974 (gage height, 8.32 ft or 2.536 m); minimum, 21 ft³/s (0.59 m³/s) Nov. 30, 1954 (gage height, 0.66 ft or 0.201 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 633 ft³/s (17.9 m³/s) June 11 (gage height, 2.77 ft or 0.844 m), no peak above base of 1,800 ft³/s (51 m³/s); minimum, 23 ft³/s (0.65 m³/s) Nov. 27 (gage height, 0.72 ft or 0.219 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 19				July 20 to Sept. 30			
0.8	30	2.0	273	1.9	40	2.3	131
1.0	48	2.5	472	2.1	83	2.5	262
1.3	88	3.0	717				
1.6	152						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	93	57	56	61	61	64	371	408	140	63	82
2	108	107	56	58	58	59	63	420	442	142	61	70
3	118	122	57	59	56	59	63	363	383	149	59	62
4	114	107	62	59	56	59	66	294	412	155	57	58
5	110	100	57	57	56	58	73	249	408	157	55	54
6	110	97	54	54	56	61	80	236	412	142	56	52
7	107	94	61	61	56	63	90	226	468	133	56	50
8	105	92	62	57	56	63	107	230	508	124	56	48
9	103	91	64	55	57	64	124	236	425	119	59	46
10	101	90	62	57	57	61	117	309	472	113	56	46
11	99	89	63	61	57	58	140	287	603	109	53	46
12	98	81	58	62	58	63	157	259	499	103	52	44
13	97	70	63	62	59	62	171	280	408	101	49	44
14	96	69	58	62	59	61	155	320	375	96	47	42
15	95	83	57	62	58	57	135	287	347	92	46	47
16	94	94	61	62	59	61	165	270	312	90	45	58
17	93	92	57	62	58	62	179	252	287	87	43	74
18	90	89	55	62	59	61	173	239	266	84	42	75
19	89	87	51	62	59	62	162	239	263	86	41	70
20	86	76	48	61	59	59	152	243	280	88	41	82
21	91	74	53	61	62	61	160	243	305	87	41	101
22	91	83	58	59	61	61	196	249	259	85	42	96
23	89	72	57	54	61	64	249	347	226	84	41	85
24	89	74	58	54	59	64	301	403	208	89	42	93
25	95	85	59	59	56	63	359	387	196	121	59	108
26	95	62	61	59	62	63	420	347	185	104	75	114
27	88	34	62	61	59	66	379	347	171	90	94	119
28	92	42	53	58	61	64	351	328	160	81	81	115
29	97	58	54	57	---	63	363	298	152	75	73	218
30	93	59	56	57	---	63	355	283	145	69	76	251
31	92	---	58	59	---	64	---	301	---	67	94	---
TOTAL	3032	2466	1792	1829	1635	1910	5569	9143	9985	3262	1755	2450
MEAN	97.8	82.2	57.8	59.0	58.4	61.6	186	295	333	105	56.6	81.7
MAX	118	122	64	62	62	66	420	420	603	157	94	251
MIN	86	34	48	54	56	57	63	226	145	67	41	42
CFSM	.46	.39	.27	.28	.27	.29	.87	1.39	1.56	.49	.27	.38
IN.	.53	.43	.31	.32	.29	.33	.97	1.60	1.74	.57	.31	.43
AC-FT	6010	4890	3550	3630	3240	3790	11050	18140	19810	6470	3480	4860

CAL YR 1976 TOTAL 144628 MEAN 395 MAX 2380 MIN 34 CFSM 1.85 IN 25.26 AC-FT 286900
WTR YR 1977 TOTAL 44828 MEAN 123 MAX 603 MIN 34 CFSM .58 IN 7.83 AC-FT 88920

13313000 JOHNSON CREEK AT YELLOW PINE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
OCT								
20...	1540	89	103	--	13.5	4.0	--	--
NOV								
30...	1031	55	112	6.8	-5.0	2.0	48	4
JAN								
11...	1525	64	102	--	-2.0	1.0	--	--
APR								
06...	1205	77	89	--	13.0	4.0	--	--
MAY								
10...	1142	342	52	8.1	14.5	6.5	21	0
JUN								
21...	1225	315	52	--	24.0	11.5	--	--
AUG								
02...	1142	63	92	--	22.5	13.0	--	--
SEP								
13...	1010	43	98	8.0	9.0	7.5	--	--
28...	0930	115	78	7.6	11.5	8.0	34	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT									
20...	--	--	--	--	--	--	--	--	--
NOV									
30...	15	2.5	3.2	13	.2	.8	53	43	4.9
JAN									
11...	--	--	--	--	--	--	--	--	--
APR									
06...	--	--	--	--	--	--	--	--	--
MAY									
10...	6.8	1.0	1.8	15	.2	.6	26	21	2.1
JUN									
21...	--	--	--	--	--	--	--	--	--
AUG									
02...	--	--	--	--	--	--	--	--	--
SEP									
13...	--	--	--	--	--	--	--	--	--
28...	11	1.7	2.5	13	.2	.7	43	35	6.4

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT								
20...	--	--	--	--	--	--	--	--
NOV								
30...	.5	.2	14	67	.09	9.99	.02	.02
JAN								
11...	--	--	--	--	--	--	--	--
APR								
06...	--	--	--	--	--	--	--	--
MAY								
10...	.5	.1	10	36	.05	33.2	.03	.00
JUN								
21...	--	--	--	--	--	--	--	--
AUG								
02...	--	--	--	--	--	--	--	--
SEP								
13...	--	--	--	--	--	--	--	--
28...	.4	.1	12	56	.08	17.4	.01	.00

13316500 LITTLE SALMON RIVER AT RIGGINS, ID

LOCATION.--Lat 45°24'47", long 116°19'29", SE¼SW¼ sec.15, T.24 N., R.1 E., Idaho County, Hydrologic Unit 17060210, on right bank 250 ft (76.2 m) upstream from highway bridge, at mile 0.5 (0.8 km), and 0.8 mi (1.3 km) southwest of Riggins.

DRAINAGE AREA.--576 mi² (1,492 km²). Mean altitude, 5,430 ft (1,655 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1951 to February 1955, September 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,760 ft or 536 m (from topographic map). Prior to Feb. 25, 1966, at datum 5.00 ft (1.52 m) higher.

REMARKS.--Records fair. Diversions above station for irrigation of about 15,300 acres or 6,190 hm² (1966 determination).

AVERAGE DISCHARGE.--24 years (1952-54, 1957-77), 831 ft³/s (23.5 m³/s), 602,100 acre-ft/yr (742 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) June 17, 1974; maximum gage height, 12.39 ft (3.78 m) June 13, 1953; minimum discharge, 101 ft³/s (2.86 m³/s) Aug. 19, 1977 (gage height, 2.04 ft or 0.622 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood about June 1, 1948, reached a discharge of 9,200 ft³/s (261 m³/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft³/s (42.8 m³/s) June 4 (gage height, 4.73 ft or 1.442 m); no peak above base of 2,000 ft³/s (57 m³/s); minimum, 101 ft³/s (2.86 m³/s) Aug. 19 (gage height, 2.04 ft or 0.622 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.0	100	3.0	293
2.2	114	3.5	552
2.4	137	4.0	896
2.7	197	4.5	1,290

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	205	164	146	139	153	166	1020	1040	208	123	133
2	240	213	162	144	135	149	172	1170	1040	203	122	128
3	257	222	160	151	133	149	168	843	900	203	121	123
4	247	216	164	147	132	147	164	615	1050	211	120	121
5	240	211	160	141	132	144	203	493	1140	225	118	119
6	240	205	154	133	133	149	237	426	1170	216	124	115
7	237	200	160	147	135	156	253	390	1150	205	125	112
8	234	197	164	149	135	185	302	380	1240	192	120	111
9	231	195	170	142	133	310	355	385	957	183	117	110
10	228	192	168	142	138	336	302	661	772	178	113	109
11	228	192	164	147	139	225	286	843	680	174	112	109
12	225	192	160	153	139	203	286	674	677	168	110	108
13	222	185	158	151	141	190	315	750	592	160	108	109
14	222	181	154	151	141	185	282	829	556	153	108	106
15	222	185	154	153	141	162	257	602	522	151	106	108
16	225	190	156	153	141	162	264	540	461	144	105	121
17	225	192	154	151	141	174	257	482	418	141	106	166
18	225	187	151	153	139	170	247	454	376	141	107	164
19	225	185	144	154	141	160	240	448	399	141	105	144
20	225	181	139	153	141	158	228	437	396	136	104	166
21	224	176	146	153	149	147	231	454	393	130	104	187
22	219	178	153	151	153	156	234	487	357	129	105	195
23	216	172	153	149	149	178	345	840	319	138	107	190
24	211	172	153	146	146	203	546	863	291	144	106	181
25	211	174	151	138	141	190	808	725	274	166	119	195
26	219	168	153	133	146	185	926	667	261	178	134	216
27	213	139	151	133	144	176	792	674	250	162	146	208
28	211	133	149	140	146	181	757	618	234	146	129	228
29	205	164	146	137	---	168	814	562	231	135	125	736
30	203	166	144	136	---	156	873	526	213	130	132	722
31	203	---	144	138	---	158	---	625	---	127	145	---
TOTAL	6967	5568	4803	4515	3923	5565	11310	19483	18358	5118	3626	5544
MEAN	225	186	155	146	140	180	377	628	612	165	117	185
MAX	257	222	170	154	153	336	926	1170	1240	225	146	736
MIN	203	133	139	133	132	144	164	380	213	127	104	106
AC-FT	13820	11040	9530	8960	7780	11040	22430	38640	36410	10150	7190	11000

CAL YR 1976 TOTAL 290993 MEAN 795 MAX 4070 MIN 133 AC-FT 577200
WTR YR 1977 TOTAL 94780 MEAN 260 MAX 1240 MIN 104 AC-FT 188000

13316500 LITTLE SALMON RIVER AT RIGGINS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
OCT 26...	1455	217	144	8.9	9.5	8.5	61	0
NOV 29...	1400	161	170	--	2.0	3.0	--	--
DEC 27...	1450	145	179	--	12.0	4.0	--	--
JAN 24...	1500	138	171	--	2.0	3.0	--	--
MAR 21...	1310	152	157	--	13.0	5.5	--	--
APR 25...	1515	686	78	7.5	28.0	10.0	30	3
MAY 23...	1345	897	67	--	20.0	10.5	--	--
JUN 27...	1320	251	127	--	25.0	16.0	--	--
JUL 28...	1310	149	152	--	--	18.5	--	--
AUG 25...	1335	128	167	--	21.0	16.0	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	ALKALINITY, TOTAL (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT 26...	19	3.3	5.1	15	.3	1.5	75	62	13
NOV 29...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
JAN 24...	--	--	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--	--	--
APR 25...	9.1	1.7	2.8	16	.2	1.1	32	26	--
MAY 23...	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--
JUL 28...	--	--	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	--	--	--	--

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 26...	1.4	.1	15	96	.13	56.2	.04	.02
NOV 29...	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--
JAN 24...	--	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--	--
APR 25...	.7	.1	11	49	.07	90.8	.14	.02
MAY 23...	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--
JUL 28...	--	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	--	--	--

13317000 SALMON RIVER AT WHITE BIRD, ID

LOCATION.--Lat 45°45'01", long 116°19'23", in NE¼NW¼SW¼ sec.22, T.28 N., R.1 E., Idaho County, Hydrologic Unit 17060209, on left bank 0.1 mi (0.2 km) upstream from White Bird Creek, 0.6 mi (1.0 km) downstream from Canfield-Joseph highway bridge, mi (1.6 km) southwest of White Bird, and at mile 53.7 (86.4 km). Records include flow of White Bird Creek.

DRAINAGE AREA.--13,550 mi² (35,090 km²), approximately, includes that of White Bird Creek. Mean altitude, 6,720 ft (2,048 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to September 1917, October 1919 to current year.

REVISED RECORDS.--WSP 753: 1932. WSP 1043: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,412.65 ft (430.575 m) above mean sea level. Aug. 18, 1910, to Sept. 30, 1917, and Oct. 1, 1919, to Sept. 13, 1920, nonrecording gages at site 600 ft (182.88 m) downstream at different datum. Sept. 14, 1920, to Jan. 2, 1931, nonrecording gage on highway bridge 200 ft (60.96 m) upstream at datum 10 ft (3.048 m) higher.

REMARKS.--Records good. Diversions above station for irrigation of about 165,000 acres (66,800 hm²) of which about 1,200 acres (490 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--65 years, 11,260 ft³/s (319 m³/s), 11.28 in/yr (287 mm/yr), 8,158,000 acre-ft/yr (10,100 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft³/s (3,680 m³/s) June 17, 1974 (gage height, 35.81 ft or 10.915 m); minimum, 1,580 ft³/s (44.7 m³/s) Dec. 11, 1932 (gage height, 10.23 ft or 3.181 m), from rating curve extended below 2,200 ft³/s (623 mm/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,800 ft³/s (617 m³/s) June 8 (gage height, 19.07 ft or 5.812 m); minimum, 2,640 ft³/s (74.8 m³/s) Aug. 22, 23 (gage height, 11.71 ft or 3.569 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 18 to June 14)

11.50	2,340	15.00	9,010
12.00	3,040	17.00	14,700
13.00	4,650	19.00	22,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6310	5570	4390	3120	3620	3850	3600	12700	12500	6300	4080	4010
2	6290	5710	4120	3160	3770	3950	3620	13900	14600	6110	3910	3830
3	6470	5900	4070	3420	3970	3970	3590	13900	15300	6120	3780	3610
4	6520	6120	4140	3570	4070	3880	3560	12100	15900	6520	3660	3450
5	6410	5960	4240	3770	3880	3850	3650	10500	17700	6680	3570	3290
6	6270	5750	4410	3690	3680	3780	3990	9350	18500	6950	3550	3200
7	6250	5610	4440	3900	3620	3770	4460	8630	19500	6900	3570	3110
8	6160	5510	4480	3850	3620	3900	5210	8250	20500	6490	3550	2980
9	6040	5490	5020	3820	3660	4050	6200	8180	20600	6010	3510	2860
10	6000	5460	5120	3650	3740	4170	6800	8680	18200	5790	3540	2780
11	6000	5440	4930	3470	3870	3950	6690	9780	18600	5620	3510	2750
12	5960	5380	4650	3480	3930	3720	6370	9410	20400	5430	3440	2730
13	5850	5230	4380	3510	3970	3650	6250	9410	18800	5140	3340	2710
14	5770	4950	4150	3870	4000	3720	6270	10300	17200	4940	3200	2680
15	5690	4620	4040	4150	4020	3690	6040	10100	16300	4770	3070	2680
16	5630	4690	3880	4510	4000	3560	5810	9590	15100	4580	3000	2850
17	5610	5290	3750	4670	3950	3440	5790	9170	14000	4390	2950	3230
18	5570	5440	3710	4670	3950	3560	5810	9090	12900	4220	2880	3690
19	5530	5440	3560	4620	3990	3660	5900	9090	11900	4110	2780	3830
20	5490	5340	3270	4510	4040	3590	5710	9170	11300	4170	2730	3900
21	5490	5150	3070	4330	4050	3510	5480	9190	11500	4010	2680	4230
22	5510	4930	3030	4140	4170	3470	5530	9350	11200	3900	2640	4600
23	5510	4950	3250	4000	4050	3540	6100	10000	10400	3980	2680	4630
24	5490	4910	3820	3830	4020	3740	7480	11200	9590	4060	2810	4500
25	5530	4800	4270	3570	3780	3820	9330	11600	8880	4570	2900	4520
26	5710	4950	4410	3180	3690	3780	11200	12400	8350	5790	3150	4750
27	5710	4710	4530	3130	3770	3710	11800	13000	7810	6140	3550	4870
28	5650	3900	4440	3300	3750	3720	11400	12700	7320	5610	3700	4910
29	5570	3180	4430	3470	---	3680	11400	12100	6950	5000	3620	5570
30	5550	3340	3870	3500	---	3560	11600	11600	6600	4590	3600	6810
31	5570	---	3340	3560	---	3510	---	11200	---	4300	3860	---
TOTAL	181110	153720	127210	117420	108630	115750	196640	325840	418400	163390	102810	113560
MEAN	5842	5124	4104	3788	3880	3734	6555	10510	13950	5271	3316	3785
MAX	6520	6120	5120	4670	4170	4170	11800	13900	20600	6950	4080	6810
MIN	5490	3180	3030	3120	3620	3440	3560	8180	6600	3900	2640	2680
CFSM	.43	.38	.30	.28	.29	.28	.48	.78	1.03	.39	.25	.28
IN.	.50	.42	.35	.32	.30	.32	.54	.89	1.15	.45	.28	.31
AC-FT	359200	304900	252300	232900	215500	229600	390000	646300	829900	324100	203900	225200

CAL YR 1976 TOTAL 5323860 MEAN 14550 MAX 69600 MIN 3030 CFSM 1.07 IN 14.62 AC-FT 10560000
WTR YR 1977 TOTAL 2124480 MEAN 5820 MAX 20600 MIN 2640 CFSM .43 IN 5.83 AC-FT 4214000

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1966 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to current year.
REMARKS.--Temperature observations made at approximately 0800 and 1700 on alternate days.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25°C on several days during summer months; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 28°C July 31, Aug. 2; minimum daily, 1.0°C Dec. 2, 20, Jan. 1, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
27...	1230	5520	177	8.0	14.5	8.0	2	12.3	109	<1	84	77
NOV												
30...	1220	3200	191	7.6	12.0	1.5	1	13.9	105	<1	<1	83
DEC												
28...	1200	4650	197	8.0	-4.0	.5	2	14.3	104	<1	21	81
JAN												
25...	1400	3440	205	8.1	3.0	1.0	1	14.0	104	83	30	76
FEB												
23...	1200	4100	*178	8.2	13.5	2.0	3	13.4	102	84	29	74
MAR												
22...	1200	3480	179	7.9	21.0	9.0	3	13.0	118	82	87	76
APR												
26...	0945	11200	71	7.6	19.0	12.0	6	10.0	100	84	61	33
MAY												
24...	1100	11000	86	7.8	11.0	12.5	1	10.1	99	20	27	36
JUN												
28...	1000	7450	120	7.6	29.0	20.0	2	8.2	94	812	>100	49
JUL												
28...	0900	5460	157	7.6	21.5	21.0	15	7.9	90	--	--	66
AUG												
25...	0800	2840	179	8.3	16.5	19.0	2	8.1	91	37	--	76
SEP												
30...	1040	6590	171	8.0	11.5	11.5	8	--	--	43	194	75

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT												
27...	0	22	5.3	8.4	19	.4	1.5	100	0	82	13	3.0
NOV												
30...	9	24	5.6	8.6	18	.4	1.4	*90	0	74	18	2.6
DEC												
28...	0	23	5.7	8.3	18	.4	1.3	100	0	82	15	2.8
JAN												
25...	0	22	5.0	8.1	19	.4	1.2	*94	0	77	15	3.0
FEB												
23...	2	21	5.2	8.0	19	.4	1.2	*88	0	72	15	2.9
MAR												
22...	0	22	5.2	7.9	18	.4	1.2	95	0	78	14	2.9
APR												
26...	0	10	2.0	4.0	20	.3	1.0	43	0	35	3.7	.9
MAY												
24...	0	11	2.1	4.2	20	.3	.9	51	0	42	8.9	1.1
JUN												
28...	0	15	2.8	5.6	19	.3	1.1	63	0	52	2.3	1.5
JUL												
28...	0	20	3.8	7.8	20	.4	1.7	88	0	72	10	2.1
AUG												
25...	4	22	5.1	9.5	21	.5	1.6	88	0	72	15	2.3
SEP												
30...	6	22	4.8	7.8	18	.4	1.5	84	0	69	10	2.8

* Not a field determination.
B Results based on count outside of ideal colony count range.

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT												
27...	.4	14	120	118	.16	1790	.13	.63	.76	3.4	.02	--
NOV												
30...	.4	15	111	120	.15	959	.03	.00	.03	.13	.01	--
DEC												
28...	.5	17	113	123	.15	1420	.92	.13	1.1	4.6	.01	.9
JAN												
25...	.4	15	110	116	.15	1020	.19	3.8	4.0	18	.02	--
FEB												
23...	.5	14	118	111	.16	1310	.14	.10	.24	1.1	.00	--
MAR												
22...	.5	14	114	115	.16	1070	.04	2.0	2.0	9.0	.04	1.1
APR												
26...	.3	11	57	54	.08	1720	.05	.36	.41	1.8	.02	--
MAY												
24...	.2	11	58	65	.08	1720	.03	.43	.46	2.0	.00	--
JUN												
28...	.3	12	72	72	.10	1450	.03	.11	.14	.62	.01	1.7
JUL												
28...	.4	17	102	106	.14	1500	.05	.04	.09	.40	.04	--
AUG												
25...	.5	12	103	111	.14	790	.02	.16	.18	.80	.01	--
SEP												
30...	.4	14	102	105	.14	1820	.05	--	--	--	.06	44

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS-PENDED COBALT (CO) (UG/L)
DEC											
28...	2	0	2	<10	<9	1	0	0	0	<50	<50
MAR											
22...	0	--	2	<10	<9	1	0	0	0	<50	<49
JUN											
28...	2	--	2	<10	--	1	10	--	0	<50	--
SEP											
30...	2	0	2	<10	<9	1	10	10	0	<50	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)
DEC											
28...	0	10	8	2	130	40	<100	<95	5	10	10
MAR											
22...	1	<10	<9	1	180	70	<100	<97	3	10	0
JUN											
28...	0	<10	--	9	50	30	<100	--	9	0	--
SEP											
30...	0	<10	<9	1	340	30	<100	<93	7	20	20

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC										
28...	0	.3	.3	.0	0	0	0	10	0	10
MAR										
22...	10	.0	--	.0	0	0	0	0	0	0
JUN										
28...	0	1.5	--	.2	0	0	0	10	--	4
SEP										
30...	0	.0	.0	.0	0	0	0	0	0	0

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ATRAZINE (UG/L)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)
NOV 30...	1220	3200	ND	ND	ND	--	ND	ND	ND	ND
FEB 23...	1200	4100	ND	--	ND	--	ND	--	ND	--
MAY 24...	1100	11000	ND	ND	ND	ND	ND	ND	ND	ND
AUG 25...	0800	2840	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	DIAZINON IN BOTTOM MATERIAL (UG/KG)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)
NOV 30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 23...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 25...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	MALATHION IN BOTTOM MATERIAL (UG/KG)
NOV 30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 23...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 25...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL METHOXYCHLOR (UG/L)	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL PARATHION (UG/L)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL TRITHION (UG/L)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL PARATHION (UG/L)	PARATHION IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)
NOV 30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
FEB 23...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 25...	ND	--	ND	--	ND	--	ND	--	ND	--

ND Material specifically analyzed for but not detected.

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TRI-THION IN BOTTOM MA-TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MA-TERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MA-TERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MA-TERIAL (UG/KG)
NOV 30...	ND	ND	ND	ND	ND	--	ND	--	ND	--
FEB 23...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 25...	ND	--	ND	--	ND	--	ND	--	ND	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
OCT 27...	1230	4	60	100	--	--	--	--
NOV 30...	1220	1	8.5	71	100	--	--	--
DEC 28...	1200	5	63	52	57	76	100	--
JAN 25...	1400	3	28	54	67	78	91	100
FEB 23...	1200	4	44	85	93	100	--	--
MAR 22...	1200	2	19	97	100	--	--	--
APR 26...	0945	35	1060	74	85	96	99	100
MAY 24...	1100	8	238	74	90	99	100	--
JUN 28...	1000	4	80	88	97	100	--	--
JUL 28...	0900	48	708	97	98	100	--	--
AUG 25...	0800	2	15	92	100	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
DEC 28...	28	.462	.231	.074	.027	--	--	3122
JUN 28...	35	.512	.394	--	--	.044	.001	2662

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	---	---	10.0	---	2.0	1.0	---	---	6.0	---	8.0
2	---	17.0	10.0	---	1.0	---	---	2.0	4.0	---	6.0	---
3	16.0	---	---	11.0	---	5.0	2.0	---	---	6.0	---	5.0
4	---	15.0	9.0	---	4.0	---	---	4.0	4.0	---	5.0	---
5	14.0	---	---	11.0	---	5.0	2.0	---	---	5.0	---	8.0
6	---	15.0	10.0	---	2.0	---	---	2.0	5.0	---	8.0	---
7	14.0	---	---	12.0	---	5.0	2.0	---	---	6.0	---	7.0
8	---	17.0	12.0	---	4.0	---	---	1.0	4.0	---	5.0	---
9	15.0	---	---	10.0	---	5.0	2.0	---	---	7.0	---	5.0
10	---	15.0	10.0	---	2.0	---	---	4.0	5.0	---	5.0	---
11	14.0	---	---	12.0	---	5.0	4.0	---	---	7.0	---	7.0
12	---	19.0	10.0	---	4.0	---	---	2.0	5.0	---	7.0	---
13	12.0	---	---	9.0	---	5.0	2.0	---	---	7.0	---	7.0
14	---	15.0	5.0	---	3.0	---	---	5.0	5.0	---	5.0	---
15	12.0	---	---	9.0	---	3.0	3.0	---	---	7.0	---	7.0
16	---	12.0	8.0	---	2.0	---	---	5.0	6.0	---	6.0	---
17	10.0	---	---	9.0	---	5.0	4.0	---	---	9.0	---	10.0
18	---	12.0	7.0	---	4.0	---	---	5.0	7.0	---	9.0	---
19	10.0	---	---	8.0	---	2.0	4.0	---	---	10.0	---	8.0
20	---	14.0	6.0	---	1.0	---	---	4.0	6.0	---	6.0	---
21	10.0	---	---	10.0	---	5.0	4.0	---	---	10.0	---	8.0
22	---	14.0	9.0	---	2.0	---	---	4.0	6.0	---	7.0	---
23	11.0	---	---	9.0	---	5.0	3.0	---	---	7.0	---	7.0
24	---	14.0	7.0	---	3.0	---	---	6.0	5.0	---	9.0	---
25	11.0	---	---	9.0	---	3.0	3.0	---	---	5.0	---	11.0
26	---	10.0	7.0	---	5.0	---	---	4.0	4.0	---	10.0	---
27	10.0	---	---	4.0	---	4.0	2.0	---	---	7.0	---	7.0
28	---	13.0	3.0	---	2.0	---	---	4.0	5.0	---	9.0	---
29	10.0	---	---	2.0	---	4.0	2.0	---	---	---	---	11.0
30	---	12.0	0.0	---	2.0	---	---	4.0	---	---	10.0	---
31	9.0	---	---	---	---	2.0	4.0	---	---	---	---	10.0
MEAN	12.0	14.5	7.5	9.0	2.5	4.0	3.0	3.5	5.0	7.0	7.0	8.0

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	---	12.0	---	---	---	---	22.0	24.0	---	---	20.0
2	---	11.0	---	13.0	---	---	22.0	---	---	28.0	26.0	---
3	10.0	---	11.0	---	---	---	---	21.0	24.0	---	---	22.0
4	---	13.0	---	13.0	---	---	18.0	---	---	26.0	21.0	---
5	10.0	---	11.0	---	---	15.0	---	20.0	25.0	---	---	25.0
6	---	13.0	---	12.0	15.0	---	18.0	---	---	25.0	21.0	---
7	11.0	---	10.0	---	---	16.0	---	20.0	23.0	---	---	25.0
8	---	11.0	---	12.0	16.0	---	18.0	---	---	26.0	21.0	---
9	12.0	---	12.0	---	---	15.0	---	21.0	23.0	---	---	22.0
10	---	14.0	---	14.0	14.0	---	20.0	---	---	27.0	18.0	---
11	12.0	---	12.0	---	---	16.0	---	24.0	25.0	---	---	22.0
12	---	15.0	---	15.0	14.0	---	22.0	---	---	25.0	18.0	---
13	13.0	---	14.0	---	---	15.0	---	22.0	22.0	---	---	21.0
14	---	15.0	---	15.0	15.0	---	20.0	---	---	25.0	18.0	---
15	12.0	---	13.0	---	---	16.0	---	26.0	25.0	---	---	21.0
16	---	12.0	---	14.0	15.0	---	22.0	---	---	26.0	17.0	---
17	12.0	---	13.0	---	---	18.0	---	24.0	22.0	---	---	20.0
18	---	12.0	---	12.0	16.0	---	22.0	---	---	26.0	16.0	---
19	11.0	---	12.0	---	---	18.0	---	23.0	22.0	---	---	16.0
20	---	13.0	---	15.0	17.0	---	22.0	---	---	27.0	17.0	---
21	12.0	---	15.0	---	---	20.0	---	26.0	25.0	---	---	15.0
22	---	15.0	---	15.0	18.0	---	23.0	---	---	26.0	14.0	---
23	13.0	---	15.0	---	---	20.0	---	26.0	22.0	---	---	14.0
24	---	16.0	---	13.0	19.0	---	23.0	---	---	24.0	14.0	---
25	13.0	---	12.0	---	---	22.0	---	26.0	20.0	---	---	16.0
26	---	14.0	---	13.0	20.0	---	23.0	---	---	21.0	15.0	---
27	11.0	---	12.0	---	---	22.0	---	27.0	19.0	---	---	15.0
28	---	15.0	---	14.0	20.0	---	22.0	---	---	19.0	15.0	---
29	12.0	---	11.0	---	---	22.0	---	25.0	20.0	---	---	16.0
30	---	13.0	---	---	20.0	---	21.0	---	---	18.0	12.0	---
31	---	---	---	---	---	---	---	26.0	16.0	---	---	---
MEAN	11.5	13.5	12.5	13.5	17.0	18.0	21.0	24.0	22.5	24.5	17.5	19.5
YEAR	11.5	13.0										

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 27,76		NOV 30,76		DEC 28,76		JAN 25,77		FEB 23,77	
TIME	1230		1220		1200		1400		1200	
TOTAL CELLS/ML	540		48		12000		260		1300	
DIVERSITY: DIVISION	0.0		0.0		1.7		0.3		0.0	
.CLASS	0.0		0.0		1.7		0.3		0.0	
..ORDER	0.1		0.0		2.2		0.5		0.1	
...FAMILY	2.7		0.0		2.4		2.9		2.6	
....GENUS	3.1		0.0		2.7		2.9		3.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....CHARACIUM	--	-	--	-	--	-	--	-	--	-
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	180	1	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	*	0	--	-	--	-
....WESTELLA	--	-	--	-	180	1	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	2200#	18	--	-	--	-
....SCENEDESMUS	--	-	--	-	180	1	--	-	--	-
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	92	1	--	-	--	-
...PHACOTACEAE										
....PTEROMONAS	--	-	--	-	--	-	12	5	--	-
...VOLVOCACEAE										
....EUDORINA	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	*	0	--	-	--	-
...ZYGNEMATACEAE										
....MOUGEOTIA	--	-	--	-	230	2	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	48#	100	2400#	19	--	-	24	2
....MELOSIRA	7	1	--	-	460	4	8	3	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	7	1	--	-	--	-	--	-	210#	15
....COCCONEIS	22	4	--	-	--	-	20	8	49	4
....RHOICOSPHENIA	22	4	--	-	--	-	--	-	36	3
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	22	4	--	-	--	-	16	6	160	12
....EPITHEMIA	73	14	--	-	*	0	4	2	24	2
...DIATOMACEAE										
....DIATOMA	80	15	--	-	--	-	27	11	49	4
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....HANNAEA	15	3	--	-	--	-	--	-	--	-
....SYNEDRA	66	12	--	-	--	-	27	11	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	58	11	--	-	--	-	31	12	180	14
...NAVICULACEAE										
....DIPLONEIS	--	-	--	-	--	-	--	-	24	2
....NAVICULA	22	4	--	-	460	4	27	11	250#	19
....NEIDIUM	--	-	--	-	--	-	--	-	12	1
...NITZSCHIACEAE										
....NITZSCHIA	150#	27	--	-	180	1	82#	32	290#	22
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	24	2
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	180	1	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	5100#	41	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	*	0	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	230	2	--	-	--	-
....TRACHELOMONAS	--	-	--	-	140	1	--	-	--	-

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 24,77		JUN 28,77		JUL 28,77		AUG 25,77		SEP 30,77	
TIME	1100		1000		0900		0800		1040	
TOTAL CELLS/ML	700		3200		1900		2100		4300	
DIVERSITY: DIVISION	0.2		0.4		1.4		1.2		1.1	
.CLASS	0.2		0.4		1.4		1.2		1.1	
..ORDER	1.2		0.9		1.8		1.8		1.2	
...FAMILY	1.7		2.7		3.0		2.1		3.0	
....GENUS	2.3		2.8		3.1		2.1		3.4	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....CHARACIUM	--	-	--	-	--	-	--	-	55	1
....SCHROEDERIA	17	2	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	82	2
...OOCYSTACEAE										
....ANKISTRODESMUS	7	1	29	1	--	-	950#	45	55	1
....OOCYSTIS	--	-	--	-	--	-	--	-	55	1
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	310#	16	66	3	27	1
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	440#	23	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	29	1	--	-	170	8	27	1
...PHACOTACEAE										
....PTEROMONAS	--	-	--	-	--	-	--	-	--	-
...VOLVOCACEAE										
....EUDORINA	--	-	--	-	--	-	66	3	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	110	4	--	-	--	-	--	-
...ZYGNEMATACEAE										
....MOUGEOTIA	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	10	1	--	-	--	-	610#	29	--	-
....MELOSIRA	260#	36	310	10	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	110	4	--	-	--	-	110	3
....COCCONEIS	--	-	110	4	120	7	--	-	410	10
....RHOICOSPHENIA	--	-	--	-	83	4	--	-	160	4
...CYMBELLACEAE										
....AMPHORA	--	-	260	8	350#	18	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-	140	3
....EPITHEMIA	--	-	--	-	31	2	--	-	220	5
...DIATOMACEAE										
....DIATOMA	7	1	57	2	42	2	--	-	110	3
...FRAGILARIACEAE										
....ASTERIONELLA	120#	16	--	-	--	-	--	-	--	-
....FRAGILARIA	210#	30	--	-	--	-	--	-	1100#	25
....HANNAEA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	*	0	1200#	38	52	3	--	-	82	2
...GOMPHONEMATACEAE										
....GOMPHONEMA	*	0	170	5	62	3	--	-	220	5
...NAVICULACEAE										
....DIPLONEIS	--	-	--	-	--	-	--	-	--	-
....NAVICULA	10	1	710#	22	150	8	--	-	330	8
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	63	9	29	1	42	2	90	4	82	2
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	10	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCACEAE										
....ANACYSTIS	--	-	--		--	-	--	-	55	1
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	220	11	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	150	7	960#	23
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	57	2	--	-	--	-	--	-

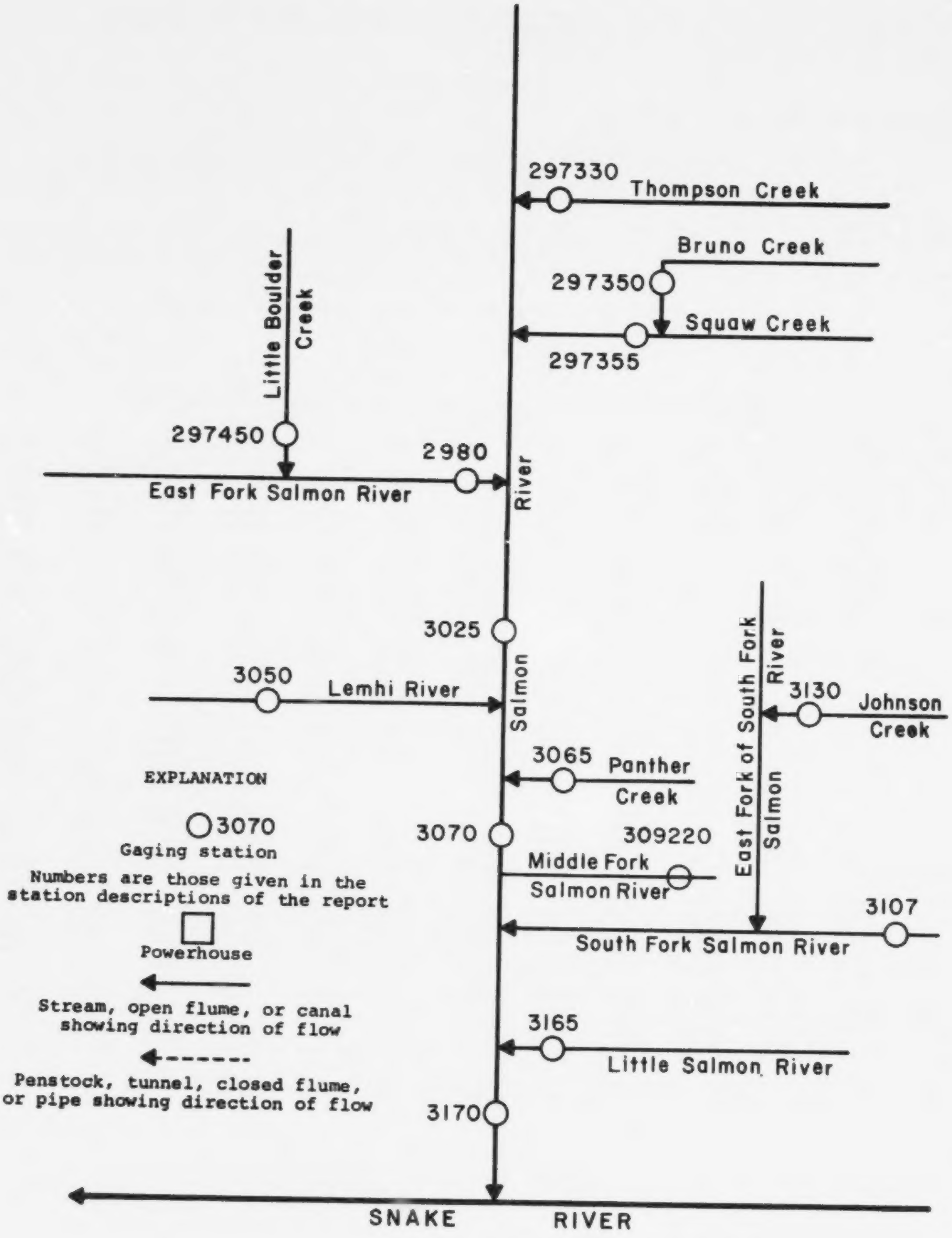

297330
Thompson Creek
Bruno Creek
297350
Squaw Creek
297355
Little Boulder Creek
297450
2980
East Fork Salmon River
Salmon River
3025
3050
Lemhi River
East Fork of South Fork Salmon River
3130
Johnson Creek
3065
Panther Creek
3070
309220
Middle Fork Salmon River
3107
South Fork Salmon River
3165
Little Salmon River
3170
SNAKE RIVER
EXPLANATION
3070
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow

FIGURE 19.--Gaging stations in Salmon River basin.

13334300 SNAKE RIVER NEAR ANATONE, WA

LOCATION.--Lat 46°05'50", long 116°58'36", in SE¼NE¼ sec.12, T.7 N., R.46 E., Asotin County, Hydrologic Unit 17060103, on left bank 1.2 mi (1.9 km) downstream from Grande Ronde River, 7.8 mi (12.6 km) east of Anatone, 22 mi (35.4 km) south of and at mile 167.2 (269.0 km).

DRAINAGE AREA.--92,960 mi² (241,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1958 to current year.

REVISED RECORDS.--WDR ID-76-1: 1974 and 1975.

GAGE.--Water-stage recorder. Datum of gage is 806.78 ft (245.907 m) above mean sea level.

REMARKS.--Records good. Diversions above station for irrigation of about 4,090,000 acres (1,660 hm²) of which about 750,000 acres (304 hm²) are by withdrawal from ground water. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet (12,300 hm³), the most effective of which is Brownlee Reservoir 106.3 mi (171.0 km) upstream (see sta 13289700). Diurnal fluctuations caused by Hells Canyon powerplant.

AVERAGE DISCHARGE.--19 years, 36,300 ft³/s (1,028 m³/s), 26,300,000 acre-ft/yr (32,400 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 ft³/s (5,520 m³/s), revised, June 18, 1974 (gage height, 24.45 ft or 7.452 m); minimum, 6,010 ft³/s (170 m³/s) Sept. 2, 1958 (gage height, 1.29 ft or 0.393 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38,000 ft³/s (1,080 m³/s) June 7 (gage height, 9.93 ft or 2.417 m); minimum, 8,430 ft³/s (239 m³/s) Sept. 12 (gage height, 2.13 ft or 0.649 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.0	7,800	6.0	25,400
3.0	11,000	10.0	54,000
4.0	15,000		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25500	19600	24600	21100	21000	17000	19600	24500	22100	15800	10100	12900
2	22500	22800	25100	21900	18800	15800	15900	26200	25400	15500	11000	10500
3	20000	22000	24900	25600	19300	16100	15700	32900	25700	15600	10700	10000
4	20600	23400	25200	23800	19200	16900	14400	26500	25100	15500	12200	9780
5	23900	23400	26000	22500	19100	17800	14700	23400	27600	14800	9930	9630
6	24400	24400	25900	22600	18800	19100	15500	21000	31000	14300	9570	9660
7	24600	24500	27600	24000	19800	17800	16600	17000	36000	14600	9600	13100
8	22400	22800	25800	23400	20400	18400	18300	15500	35400	13800	9660	11200
9	23200	24000	25200	23700	20100	17400	20000	15100	35400	13400	9630	9060
10	22800	23000	27100	23500	18100	20700	20600	15400	29100	13000	11600	8730
11	26000	23300	27500	24600	16900	20200	22300	16500	26800	12600	11800	8640
12	26700	24000	25800	24400	15600	18000	22600	20000	28600	13600	9660	8550
13	26600	24800	26500	22100	14800	17100	21300	17900	27900	14500	9840	8520
14	26500	23500	26400	20400	15200	20400	20400	18200	26100	13800	9450	10500
15	26100	24500	28400	19500	15200	20600	19600	19200	25700	11000	9240	10500
16	26500	21300	25100	20300	15400	20000	16600	18600	24900	10700	11700	8760
17	27300	20600	22500	23300	15600	18900	15200	18600	22400	10600	14400	8820
18	27400	19600	21800	25700	20600	19500	15100	19200	21200	11400	11100	9270
19	26700	21500	20100	24100	15200	19300	15500	19600	20100	10500	9030	9570
20	24100	22000	21100	22500	13900	20300	14400	18700	19300	11600	8760	9750
21	23000	23800	23000	22000	13700	18200	14200	18400	23400	11600	8700	12400
22	24300	22500	22900	21900	16000	17700	15900	18600	22000	12500	8760	13500
23	25500	22800	21800	20500	15500	15300	16100	19000	21700	13200	8700	13100
24	24400	23200	20900	21100	15500	16200	17000	20900	20500	11200	10800	13800
25	21700	22100	18700	23000	17000	18300	18900	22600	21000	11000	11200	13800
26	22100	21400	16000	23200	16900	18000	25100	23300	17200	11900	9420	13900
27	20600	25400	16400	21400	15400	18700	25900	22900	15000	13100	9480	14000
28	24100	27300	20200	21200	15400	21300	26600	22700	20400	14200	9810	14200
29	22500	24500	21700	21600	---	24300	26700	22300	17900	11400	9840	15000
30	20600	24500	21600	19100	---	21100	25700	21400	16600	10600	9900	17200
31	19100	---	22900	18600	---	18600	---	20700	---	10400	12300	---
TOTAL	741700	692500	728700	692600	478400	579000	566400	639000	731500	397700	317880	338340
MEAN	23930	23080	23510	22340	17090	18680	18880	20610	24380	12830	10250	11280
MAX	27400	27300	28400	25700	21000	24300	26700	32900	36000	15800	14400	17200
MIN	19100	19600	16000	18600	13700	15300	14200	15100	15000	10400	8700	8520
AC-FT	1471000	1374000	1445000	1374000	948900	1148000	1123000	1267000	1451000	788800	630500	671100

CAL YR 1976 TOTAL 16036800 MEAN 43820 MAX 122000 MIN 16000 AC-FT 31810000
WTR YR 1977 TOTAL 6903720 MEAN 18910 MAX 36000 MIN 8520 AC-FT 13690000

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
PERIOD OF DAILY RECORD.--
 WATER TEMPERATURES: October 1959 to current year.
INSTRUMENTATION.--Temperature recorder since October 1959.
COOPERATION.--Temperature records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF DAILY RECORD.--
 WATER TEMPERATURES: Maximum (1959-68, 1970-75), 25°C Aug. 11, 1960, Aug. 13, 1963, July 18, 1973; minimum, 0.0°C several days during winter months.
EXTREMES FOR CURRENT YEAR.--
 WATER TEMPERATURES: Maximum, 23.5°C July 29, Aug. 13, 20; minimum, 0.5°C Jan. 30, 31.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	HARDNESS (CA,MG) (MG/L)
OCT												
22...	0930	20500	392	7.6	11.5	13.0	3	9.9	97	7	<1	--
NOV												
17...	0930	19200	406	8.0	15.0	--	3	10.8	104	14	<1	140
DEC												
15...	1000	27800	455	8.0	6.5	6.5	4	11.9	113	10	81	--
JAN												
12...	1445	19100	342	--	5.0	--	2	13.8	111	0	33	--
FEB												
16...	1100	15200	342	8.1	14.0	--	2	13.5	111	0	<1	150
MAR												
16...	1015	19900	383	7.6	9.5	--	2	13.1	109	10	<1	--
APR												
13...	1130	20700	333	8.1	13.5	--	3	10.6	98	10	--	120
MAY												
11...	0915	16500	172	8.0	14.5	12.5	2	13.1	126	5	>600	78
JUN												
09...	1000	33000	198	8.0	23.5	--	10	8.8	98	32	57	--
JUL												
26...	1600	11200	513	7.1	34.0	--	2	9.1	121	32	<1	--
AUG												
23...	0930	8350	367	8.2	19.5	21.0	1	8.0	92	0	94	130
SEP												
22...	0930	13700	324	7.8	13.5	16.0	2	9.1	94	14	20	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT												
22...	--	--	--	--	--	--	--	170	0	139	--	--
NOV												
17...	0	34	13	29	31	1.1	3.8	180	0	148	39	18
DEC												
15...	--	--	--	--	--	--	--	150	0	123	--	--
JAN												
12...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
16...	2	37	14	25	26	.9	3.5	180	0	148	39	22
MAR												
16...	--	--	--	--	--	--	--	180	0	148	--	--
APR												
13...	0	30	11	21	27	.8	3.2	160	0	131	32	13
MAY												
11...	0	21	6.3	13	26	.6	2.0	100	0	82	20	9.5
JUN												
09...	--	--	--	--	--	--	--	85	0	70	--	--
JUL												
26...	--	--	--	--	--	--	--	5	0	4	--	--
AUG												
23...	0	29	13	31	34	1.2	4.1	160	0	131	48	14
SEP												
22...	--	--	--	--	--	--	--	150	0	123	--	--

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT												
22...	19	225	.31	12500	0	.68	.00	.39	.39	1.1	4.7	.05
NOV												
17...	16	212	.29	11000	2	.68	.00	1.0	1.0	1.7	7.4	.06
DEC												
15...	23	288	.39	21600	0	.81	.04	.91	.95	1.8	7.8	.07
JAN												
12...	24	268	.36	13800	3	.94	.05	.32	.37	1.3	5.8	.03
FEB												
16...	22	249	.34	10200	1	.70	.00	.40	.40	1.1	4.9	.03
MAR												
16...	22	270	.37	14500	0	.75	.01	.42	.43	1.2	5.2	.08
APR												
13...	21	217	.30	12100	3	.54	.01	.07	.08	.62	2.7	.05
MAY												
11...	15	121	.16	5390	2	.24	.00	.00	.00	.24	1.1	.02
JUN												
09...	13	112	.15	9980	200	.16	.06	16	16	16	72	.07
JUL												
26...	14	191	.26	5780	12	.21	.00	.35	.35	.56	2.5	.03
AUG												
23...	15	230	.31	5190	4	.29	.01	.43	.44	.73	3.2	.06
SEP												
22...	17	221	.30	8170	6	.33	.01	.18	.19	.52	2.3	.04

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT											
22...	6	<10	0	70	130	<100	.0	1	30	2.1	1
NOV											
17...	4	<10	0	120	180	100	.0	1	30	1.8	0
DEC											
15...	4	<10	0	140	60	<100	.0	1	30	1.9	0
JAN											
12...	6	<10	0	200	70	<100	.1	1	40	1.7	0
FEB											
16...	4	<10	0	10	60	<100	.0	1	0	1.9	0
MAR											
16...	7	<10	0	170	80	<100	.6	1	40	1.5	0
APR											
13...	4	<10	10	100	280	<100	.9	0	10	2.3	0
MAY											
11...	2	<10	0	390	160	100	.6	0	90	1.9	0
JUN											
09...	2	<10	10	30	1400	<100	4.0	0	0	2.6	0
JUL											
26...	4	<10	0	70	50	<100	1.4	0	50	3.3	0
AUG											
23...	3	<10	20	40	90	<100	.4	0	20	2.6	0
SEP											
22...	6	<10	10	<10	80	<100	.4	0	30	2.0	0

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SFD. SIFVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVF DIAM. % FINER THAN .500 MM
OCT							
22...	0930	4	221	94	100	--	--
NOV							
17...	0930	2	104	96	100	--	--
DEC							
15...	1000	4	300	84	93	100	--
JAN							
12...	1445	4	206	96	100	--	--
FEB							
16...	1100	3	123	97	100	--	--
MAR							
16...	1015	4	215	92	100	--	--
APR							
13...	1130	12	671	98	100	--	--
19...	1110	6	318	95	100	--	--
25...	1410	12	596	94	100	--	--
MAY							
03...	1525	15	1130	81	91	98	100
JUN							
09...	1000	29	2580	85	94	99	100
JUL							
26...	1600	6	181	86	93	96	100
AUG							
23...	0930	5	113	58	98	100	--
SEP							
22...	0930	5	185	79	93	97	100

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	18.0	11.5	11.5	7.0	6.5	4.0	3.5	1.0	1.0	4.0	4.0
2	18.5	17.5	12.0	11.5	6.5	6.5	3.5	3.5	1.5	1.0	4.0	4.0
3	17.5	16.5	12.0	11.5	6.5	6.0	3.5	3.5	1.5	1.0	4.5	4.0
4	16.5	15.5	12.0	12.0	6.5	6.0	3.5	3.0	1.5	1.0	4.5	3.5
5	16.5	16.0	12.0	11.5	6.5	6.0	3.0	3.0	1.5	1.0	4.5	3.5
6	17.0	16.0	12.0	11.5	6.5	6.0	3.0	2.5	1.5	1.0	4.5	4.0
7	17.0	16.5	12.0	11.5	6.5	6.5	3.0	2.5	2.0	1.0	5.0	4.5
8	16.5	15.5	12.0	11.5	6.5	6.0	2.5	2.5	2.0	1.0	5.0	4.5
9	16.5	16.0	12.0	11.5	6.5	6.5	3.0	2.5	2.5	1.5	5.0	4.5
10	16.5	16.0	12.0	11.5	6.5	6.5	2.5	2.0	2.5	2.0	5.0	4.0
11	17.0	16.0	11.5	11.0	6.5	6.0	3.0	2.5	3.5	2.5	4.5	4.0
12	16.5	16.0	11.5	10.5	6.5	6.0	3.0	2.5	3.0	3.0	4.0	4.0
13	16.5	16.0	11.0	10.0	6.0	6.0	2.5	2.5	4.0	3.0	4.0	4.0
14	16.0	15.5	10.0	9.0	6.0	5.5	2.5	2.0	3.5	3.0	4.5	3.5
15	16.0	15.5	10.0	9.5	6.0	5.5	2.0	2.0	3.0	2.5	4.5	3.5
16	15.5	15.0	10.0	9.5	6.0	5.5	2.0	2.0	3.5	3.0	4.5	4.0
17	15.0	14.5	10.5	10.0	5.5	5.0	2.5	2.0	3.5	3.0	4.5	4.0
18	14.5	14.0	10.0	8.5	5.5	4.5	2.5	2.0	4.0	3.0	4.5	4.0
19	14.0	13.5	10.0	9.0	4.5	4.5	2.5	2.0	4.0	3.5	5.0	4.5
20	13.5	13.0	9.5	8.0	4.5	4.5	2.0	2.0	4.0	3.5	5.0	4.5
21	13.0	12.5	8.5	8.0	5.0	4.5	2.0	2.0	4.0	3.5	5.0	4.5
22	13.0	12.5	9.0	8.5	5.0	4.5	2.0	1.5	3.5	3.5	6.5	5.0
23	13.0	12.5	9.0	8.0	5.0	4.5	2.0	1.5	4.0	3.5	6.5	5.5
24	12.5	12.5	9.0	8.5	4.5	4.0	2.0	1.5	4.0	3.0	6.5	5.5
25	12.5	11.5	9.0	8.5	4.5	4.0	2.0	1.5	3.5	3.0	6.5	5.5
26	12.5	11.5	8.5	8.0	4.0	4.0	1.5	1.0	4.0	3.0	6.5	6.0
27	12.0	11.5	8.0	7.0	4.5	4.0	1.5	1.0	4.0	3.0	6.0	5.5
28	12.5	11.5	7.5	7.0	4.5	4.0	1.5	1.0	4.0	3.5	6.0	5.0
29	12.5	12.0	7.5	7.0	4.0	3.5	1.0	1.0	---	---	5.5	5.0
30	12.5	11.5	7.5	6.5	4.0	3.5	1.0	.5	---	---	6.5	5.0
31	12.0	11.5	---	---	4.0	3.5	1.0	.5	---	---	6.5	6.0
MONTH	18.5	11.5	12.0	6.5	7.0	3.5	4.0	.5	4.0	1.0	6.5	3.5

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.0	13.5	12.5	16.0	15.0	20.5	19.5	23.0	21.0	19.0	17.0
2	7.0	6.0	13.0	13.0	15.5	14.5	20.0	19.0	22.5	21.5	19.0	18.0
3	8.0	6.5	13.0	12.0	15.0	14.0	20.0	19.0	23.0	21.5	19.5	18.5
4	9.0	7.0	12.0	10.5	16.5	14.5	19.0	18.0	22.5	21.0	20.5	19.0
5	10.5	8.0	11.5	10.5	18.5	16.0	18.5	17.5	23.0	21.5	21.5	20.0
6	11.0	9.0	11.5	10.5	18.5	17.0	19.0	17.5	23.0	21.5	21.5	20.0
7	11.5	10.0	12.0	11.0	18.5	16.5	19.5	18.0	23.0	21.5	21.0	20.0
8	11.0	10.0	12.5	11.5	18.5	17.0	20.0	18.5	23.0	21.5	20.5	19.0
9	10.0	9.0	13.5	12.0	17.5	16.0	20.0	19.0	23.0	21.5	20.5	18.5
10	10.0	8.5	13.5	12.5	16.5	15.5	20.5	18.5	22.5	21.5	20.0	18.5
11	9.5	8.5	13.5	12.5	17.0	15.5	20.5	19.0	23.0	21.5	20.0	18.5
12	10.5	9.0	13.5	12.5	18.0	16.0	20.5	19.5	23.0	21.5	20.0	18.5
13	10.0	9.5	14.5	13.0	17.0	16.5	20.0	19.0	23.5	21.5	20.0	18.5
14	10.0	9.0	14.0	13.5	17.0	16.0	20.5	19.0	23.0	22.0	20.0	18.5
15	9.5	9.0	13.5	12.5	17.5	16.0	21.5	19.5	23.0	22.0	20.0	19.0
16	10.5	9.5	12.5	11.5	18.5	17.0	22.0	20.0	23.0	21.5	19.0	18.5
17	11.0	9.5	11.5	11.0	19.0	17.5	21.0	20.5	22.5	21.5	18.5	17.5
18	10.0	9.0	11.5	11.0	20.0	18.0	20.5	20.0	23.0	21.5	18.5	17.5
19	10.0	9.0	12.5	11.0	20.0	19.0	20.5	19.0	23.0	21.5	18.0	17.5
20	11.0	9.0	13.5	12.0	19.5	18.5	21.5	19.5	23.5	21.5	18.0	17.5
21	11.0	9.5	14.0	13.0	19.5	18.0	22.0	19.5	23.0	22.0	17.5	17.0
22	12.5	10.0	15.0	13.5	20.0	18.5	22.5	20.5	22.5	21.5	17.0	16.5
23	13.5	11.5	14.5	14.0	19.5	18.5	22.5	21.0	22.0	21.0	16.0	15.5
24	14.0	12.5	14.0	13.5	20.0	18.5	21.5	21.0	21.5	20.5	16.0	15.0
25	13.5	13.0	14.0	12.5	20.5	19.0	22.0	20.5	21.0	20.0	16.0	15.0
26	13.0	12.0	13.5	13.0	20.5	19.5	22.5	21.0	20.5	19.5	16.5	15.0
27	13.0	12.0	13.0	12.0	21.5	20.0	23.5	21.5	20.0	19.0	16.0	15.5
28	13.0	11.5	12.5	11.5	20.5	19.5	22.5	21.5	19.5	19.0	15.5	15.5
29	13.5	12.0	13.5	11.5	20.5	19.0	22.5	20.5	19.0	18.5	16.0	15.5
30	13.5	12.5	13.5	12.5	20.5	19.5	22.0	20.5	18.5	18.0	15.5	14.5
31	---	---	15.0	13.0	---	---	22.5	20.5	18.0	17.5	---	---
MONTH	14.0	6.0	15.0	10.5	21.5	14.0	23.5	17.5	23.5	17.5	21.5	14.5
YEAR	23.5	.5										

13334700 ASOTIN CREEK BELOW KEARNEY GULCH, NEAR ASOTIN, WA

LOCATION--Lat 46°19'35", long 117°09'06", in SW¼SE¼ sec.22, T.10 N., R.45 E., Asotin County, Hydrologic Unit 17060103, on left bank 0.3 mi (0.5 km) downstream from Kearney Gulch, 2.5 mi (4.0 km) upstream from George Creek, 5.0 mi (8.0 km) west of Asotin, and at mile 5.3 (8.5 km).

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,090 ft (332 m), from topographic map.

REMARKS.--Records good. No regulation. Several diversions for irrigation. Prior to Nov. 20, 1959, at a point 3.3 mi (5.3 km) upstream, the city of Clarkston diverted about 30 ft³/s (0.85 m³/s) for municipal use and irrigation. Natural low flows nearly equivalent to those of former station 3.3 mi (5.3 km) upstream.

AVERAGE DISCHARGE.--18 years, 77.2 ft³/s (2.186 m³/s), 55,930 acre-ft/yr (69.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge about 3,700 ft³/s (105 m³/s) Jan. 15, 1974; maximum gage height, 8.07 ft (2.460 m) Jan. 14, 1974; minimum discharge, 13 ft³/s (0.37 m³/s) Jan. 11, 1963, result of freezeup; minimum gage height, 0.69 ft³/s (0.210 m³/s) Aug. 14, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft³/s (6.23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 10	0645	(a)		*2.52	0.768	Sept. 29	1815	*86	2.44	1.15	0.351

Minimum discharge, 26 ft³/s (0.74 m³/s) Aug. 14, 15, gage height, 0.69 (0.210 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	51	40	37	38	41	41	54	49	41	32	37
2	43	47	40	37	38	40	40	60	52	41	32	35
3	42	43	40	38	38	41	40	59	50	41	33	35
4	42	43	40	38	37	40	40	57	49	42	32	34
5	42	43	40	36	37	39	41	55	47	43	32	35
6	40	43	40	37	37	39	44	54	47	41	32	33
7	40	42	42	37	37	40	48	52	49	40	32	33
8	40	42	42	37	38	43	54	50	56	38	32	32
9	40	42	43	36	38	43	57	51	51	38	31	33
10	40	43	40	37	34	41	53	49	49	39	31	32
11	40	43	40	38	40	40	50	49	47	37	31	31
12	39	43	40	38	39	40	49	48	49	35	31	31
13	39	42	40	38	40	40	50	47	51	34	31	31
14	39	42	40	38	40	40	49	49	51	35	31	31
15	39	43	39	39	39	40	47	48	50	34	27	31
16	39	43	40	40	39	40	48	49	47	34	29	30
17	39	43	40	40	39	40	48	50	46	32	29	31
18	40	43	40	42	39	42	46	59	43	36	29	32
19	40	43	39	42	39	42	45	57	44	38	29	32
20	40	42	40	40	39	40	45	54	44	36	29	34
21	40	42	38	39	41	40	46	53	44	36	29	32
22	40	42	39	39	40	40	47	52	44	35	32	33
23	40	42	40	38	40	40	50	57	43	33	31	32
24	40	42	39	38	39	41	55	55	42	34	34	34
25	42	42	39	38	40	40	60	53	42	35	34	34
26	43	42	40	38	40	40	61	53	41	34	34	33
27	42	39	40	38	40	43	58	54	41	33	34	32
28	42	40	39	38	41	42	55	51	40	33	34	37
29	42	40	39	37	---	41	53	51	40	33	34	47
30	42	40	39	37	---	39	54	50	41	33	48	45
31	42	---	38	37	---	40	---	48	---	33	44	---
TOTAL	1257	1277	1235	1182	1086	1257	1474	1628	1389	1127	1003	1012
MEAN	40.5	42.6	39.8	38.1	38.8	40.5	49.1	52.5	46.3	36.4	32.4	33.7
MAX	43	51	43	42	41	43	61	60	56	43	48	47
MIN	39	39	38	36	34	39	40	47	40	32	27	30
AC-FT	2490	2530	2450	2340	2150	2490	2920	3230	2760	2240	1990	2010

CAL YR 1976 TOTAL 31644 MEAN 86.5 MAX 403 MIN 37 AC-FT 62770
WTR YR 1977 TOTAL 14927 MEAN 40.9 MAX 61 MIN 27 AC-FT 29610

CLEARWATER RIVER BASIN

13336500 SELWAY RIVER NEAR LOWELL, ID

LOCATION.--Lat 46°05'12", long 115°30'46", in SE¼NE¼ sec.25, T.32 N., R.7 E., Idaho County, Hydrologic Unit 17060302, Nezperce National Forest, on right bank 0.2 mi (0.3 km) upstream from O'Hara Creek, 7 mi (11.3 km) upstream from Lowell, 7.6 mi (12.2 km) upstream from confluence with Lochsa River, and 150.2 mi (241.7 km) upstream from mouth of Clearwater River.

DRAINAGE AREA.--1,910 mi² (4,950 km²), approximately. Mean altitude, 5,640 ft (1,719 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1911 to September 1912 (gage heights or fragmentary discharge records only), October 1929 to current year. Monthly discharge only for October 1929, published in WSP 1317.

REVISED RECORDS.--WSP 1043: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,540 ft or 469 m (from river-profile map). Apr. 11 to Sept. 2, 1911, nonrecording gage at site 2 mi (3.2 km) downstream at different datum. Feb. 7 to Sept. 22, 1912, and Oct. 14, 1929, to Nov. 19, 1930, nonrecording gages at nearby sites at different datum.

REMARKS.--Records good. Small diversions from headwaters.

AVERAGE DISCHARGE.--48 years (1930-77), 3,806 ft³/s (107.8 m³/s), 27.06 in/yr (687 mm/yr), 2,757,000 acre-ft/yr (3,399 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft³/s (1,380 m³/s) May 29, 1948 (gage height, 16.04 ft or 4.889 m); minimum, probably less than 100 ft³/s (2.83 m³/s) Jan. 8, 1937, during period of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,400 ft³/s (436 m³/s) May 2 (gage height, 8.76 ft or 2.670 m), no peak above base of 18,000 ft³/s (510 m³/s); minimum daily discharge, 430 ft³/s (12.2 m³/s) Jan. 5, 6; minimum gage height, 2.71 ft (0.826 m) Nov. 28.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 22 to Apr. 5; stage-discharge relation affected by ice
Dec. 1-5, Dec. 16 to Feb. 21)

2.7	435	5.0	3,200
3.0	585	6.0	5,600
3.3	800	8.0	12,250
4.0	1,530	10.0	20,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	820	871	880	640	575	917	1140	12600	7390	1570	748	1290
2	829	1070	810	585	585	898	1120	14500	9200	1580	718	982
3	1020	1040	780	510	595	880	1080	12800	8040	1560	703	854
4	1080	1000	770	455	605	871	1090	10600	8180	1690	681	779
5	961	952	771	430	600	854	1350	8590	9380	1730	659	725
6	961	907	755	430	595	846	1840	7330	9510	1610	647	696
7	990	880	812	435	590	880	2630	6610	9610	1490	634	674
8	943	854	871	440	600	963	3710	6910	8800	1360	616	640
9	907	863	898	455	620	1040	4970	7270	7640	1290	597	622
10	880	850	846	470	650	1020	4180	9060	6320	1250	580	609
11	970	840	787	500	690	973	3650	9510	5840	1200	568	597
12	1060	810	747	540	730	973	3500	8240	5460	1140	563	585
13	1000	720	701	585	775	942	3730	8630	4970	1090	547	569
14	934	570	694	660	800	963	3620	9410	4810	1060	536	563
15	889	730	652	750	795	898	3350	8070	4730	1020	536	569
16	871	950	630	850	790	889	3710	7180	4300	973	525	653
17	854	1080	620	930	790	917	3600	6820	4000	944	515	821
18	837	1200	610	990	820	898	3480	6230	3600	963	505	804
19	820	1130	610	1040	870	917	3410	6110	3350	1150	496	696
20	812	990	600	1030	940	898	3290	5870	3150	1100	491	763
21	812	907	610	1020	1020	889	3350	5900	3000	1050	486	1070
22	795	871	620	980	1200	907	3800	6110	2850	1020	496	1120
23	795	889	660	910	1100	1030	5240	6470	2700	950	510	1050
24	779	837	700	825	1000	1110	7770	7700	2450	920	520	982
25	846	943	740	770	944	1130	10500	7970	2250	1100	653	1060
26	898	934	765	720	917	1110	12000	7540	2100	1200	804	1090
27	854	633	790	685	898	1270	10800	7580	1950	1100	1040	1020
28	820	480	800	650	889	1300	10100	6880	1850	917	926	1000
29	812	633	800	625	---	1200	10300	6290	1730	854	917	1300
30	803	907	770	595	---	1140	10700	5810	1630	804	1270	1700
31	795	---	710	585	---	1130	---	5870	---	771	1740	---
TOTAL	27447	26341	22809	21090	21983	30703	143010	246460	150790	36456	21227	25883
MEAN	885	878	736	680	785	990	4767	7950	5026	1176	685	863
MAX	1080	1200	898	1040	1200	1300	12000	14500	9610	1730	1740	1700
MIN	779	480	600	430	575	846	1080	5810	1630	771	486	563
CFSM	.46	.46	.39	.36	.41	.52	2.50	4.16	2.63	.62	.36	.45
IN.	.53	.51	.44	.41	.43	.60	2.79	4.80	2.94	.71	.41	.50
AC-FT	54440	52250	45240	41830	43600	60900	283700	488900	299100	72310	42100	51340

CAL YR 1976 TOTAL 1868349 MEAN 5105 MAX 30700 MIN 480 CFSM 2.67 IN 36.39 AC-FT 3706000
WTR YR 1977 TOTAL 774199 MEAN 2121 MAX 14500 MIN 430 CFSM 1.11 IN 15.08 AC-FT 1536000

13336620 WHITESAND CREEK NEAR POWELL RANGER STATION, ID

LOCATION.--Lat 46°30'33", long 114°40"46', in NE¼SW¼NE¼ sec.34, T.37 N., R.14 E., Idaho County, Hydrologic Unit 17060303, on right bank bridge abutment under deck near downstream end of bridge and 100 ft (30 m) from mouth.
PERIOD OF RECORD.--September 1976 to October 1977.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1976 to October 1977.
INSTRUMENTATION.--Temperature recorder since Sept. 16, 1976.
COOPERATION.--Station maintained in cooperation with the U.S. Army Corps of Engineers, Walla Walla District, and the U.S. Forest Service.
REMARKS.--No temperature record June 14 to July 11 due to equipment malfunction.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C Aug. 18; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											---	---
8											---	---
9											---	---
10											---	---
11											---	---
12											---	---
13											---	---
14											---	---
15											---	---
16											14.0	11.0
17											15.0	11.0
18											12.0	11.0
19											12.5	9.5
20											12.5	8.5
21											12.5	9.0
22											12.0	9.5
23											11.5	9.5
24											13.0	9.5
25											12.0	9.0
26											12.0	8.5
27											11.5	8.0
28											11.5	8.0
29											11.5	8.0
30											11.5	8.0
31											---	---
MONTH											15.0	8.0
YEAR	15.0	8.0										

13336620 WHITESAND CREEK NEAR POWELL RANGER STATION, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.5	7.5	4.5	3.0	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5
2	10.5	9.0	4.5	3.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5
3	9.5	8.0	5.5	4.0	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5
4	9.0	6.0	4.5	3.0	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5
5	6.0	5.5	3.5	2.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5
6	8.0	5.5	3.0	2.0	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5
7	7.5	4.5	2.5	1.0	0.5	0.5	0.5	0.0	0.0	0.0	0.5	0.5
8	7.0	4.0	3.5	2.0	1.0	0.5	0.0	0.0	0.0	0.0	0.5	0.5
9	7.5	4.5	5.5	3.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
10	8.5	5.5	4.5	3.0	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
11	8.5	6.5	2.5	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
12	9.0	6.5	1.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
13	7.5	5.5	1.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
14	7.5	5.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
15	6.0	4.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
16	6.0	3.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.5
17	5.0	3.0	1.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	1.0	0.5
18	3.5	1.5	2.0	1.0	0.5	0.5	0.0	0.0	0.5	0.0	1.0	0.5
19	3.0	0.5	2.5	1.5	0.5	0.5	0.0	0.0	0.5	0.0	0.5	0.5
20	2.5	0.5	2.0	0.5	0.5	0.5	0.0	0.0	0.5	0.0	0.5	0.5
21	2.5	0.5	1.0	0.5	0.5	0.5	0.0	0.0	0.5	0.5	1.0	0.5
22	3.0	1.0	2.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	2.5	1.0
23	3.5	1.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	2.5	1.0
24	3.5	1.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	2.5	1.0
25	4.5	2.5	1.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	3.5	1.0
26	5.0	4.0	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	2.0	1.0
27	4.0	2.5	1.0	0.5	0.5	0.5	0.0	0.0	0.5	0.5	1.0	0.5
28	3.0	1.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	1.0	1.0
29	4.0	2.0	0.5	0.5	0.5	0.5	0.0	0.0	---	---	2.0	1.0
30	3.5	1.5	0.5	0.5	0.5	0.5	0.0	0.0	---	---	3.5	1.0
31	3.0	1.5	---	---	0.5	0.5	0.0	0.0	---	---	2.5	1.0
MONTH	10.5	0.5	5.5	0.5	1.0	0.5	0.5	0.0	0.5	0.0	3.5	0.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.5	1.0	7.0	4.0	8.5	6.5	---	---	19.0	11.5	12.5	9.0
2	2.5	1.0	6.0	4.0	8.0	6.0	---	---	18.0	11.5	12.5	9.0
3	2.5	1.0	5.5	4.0	8.0	6.0	---	---	18.5	12.0	14.0	11.0
4	4.5	1.5	4.5	3.5	10.0	6.5	---	---	19.0	12.5	15.0	11.0
5	4.5	1.0	5.0	3.5	10.5	7.0	---	---	19.0	12.0	17.0	12.5
6	4.0	1.0	5.0	3.0	11.0	8.0	---	---	19.0	12.5	17.5	12.0
7	3.5	1.0	7.0	4.0	10.0	8.5	---	---	19.0	12.5	16.5	11.5
8	3.5	1.0	7.0	5.5	9.5	8.5	---	---	19.5	11.5	15.5	10.5
9	2.5	1.0	8.0	5.5	9.0	7.5	---	---	19.0	10.5	15.0	8.5
10	3.5	1.0	7.5	5.5	9.5	8.0	---	---	19.0	11.0	14.5	8.5
11	4.0	1.0	6.5	4.5	9.0	7.0	---	---	19.0	11.0	14.5	8.5
12	6.0	1.0	6.5	4.0	9.5	7.5	16.5	13.0	19.0	11.0	14.5	9.0
13	4.0	1.5	8.0	5.0	10.0	8.5	16.0	11.5	19.5	11.5	15.0	8.0
14	5.5	2.0	7.0	5.0	---	---	16.5	10.0	17.0	11.5	13.0	8.5
15	5.5	1.0	5.5	4.0	---	---	17.5	11.0	19.5	12.5	12.0	9.5
16	4.5	2.0	4.5	3.5	---	---	18.0	11.5	19.5	11.5	11.5	9.0
17	5.5	1.0	4.0	2.5	---	---	14.5	12.5	21.0	12.0	11.0	8.5
18	5.5	1.5	5.0	3.0	---	---	13.5	11.5	21.5	13.0	11.0	7.5
19	5.5	2.0	4.5	3.5	---	---	16.0	11.0	21.0	13.5	10.5	8.0
20	5.5	2.5	6.0	4.0	---	---	16.5	10.5	21.0	14.0	10.5	8.5
21	5.0	3.0	5.5	4.0	---	---	17.0	12.5	20.0	14.0	10.5	8.0
22	7.0	3.0	7.0	4.0	---	---	18.5	12.5	19.5	13.5	8.5	7.0
23	6.5	2.5	6.5	5.0	---	---	20.0	14.0	19.5	12.5	9.0	6.5
24	6.0	2.5	5.5	4.5	---	---	15.5	13.5	15.0	13.0	9.0	7.0
25	6.0	2.5	5.5	4.5	---	---	14.5	13.0	15.0	12.0	7.0	6.5
26	5.5	3.0	6.0	3.5	---	---	16.0	12.0	12.5	11.5	9.0	6.5
27	6.0	2.5	5.5	4.0	---	---	18.0	11.5	14.5	10.5	8.0	6.0
28	6.5	3.0	4.5	3.0	---	---	17.5	12.5	11.5	9.0	9.0	7.5
29	6.0	3.5	5.5	3.0	---	---	17.5	12.5	13.0	10.5	9.0	8.0
30	7.0	3.5	6.5	3.5	---	---	17.0	11.0	10.5	9.5	8.0	7.0
31	---	---	9.0	5.5	---	---	18.0	11.0	11.0	8.5	---	---
MONTH	7.0	1.0	9.0	2.5	11.0	6.0	20.0	10.0	21.5	8.5	17.5	6.0
YEAR	21.5	0.0										

13336630 CROOKED FORK CREEK NEAR POWELL RANGER STATION, ID

LOCATION.--Lat 46°30'33", long 114°40'50", in NE¼SW¼NE¼ sec.34, T.37 N., R.14 E., Idaho County, Hydrologic Unit 17060303, on left bank bridge abutment under deck near downstream end of bridge and 100 ft (30 m) upstream from mouth.

PERIOD OF RECORD.--September 1976 to October 1977.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1976 to October 1977.

INSTRUMENTATION.--Temperature recorder since Sept. 16, 1976.

COOPERATION.--Station maintained in cooperation with the U.S. Army Corps of Engineers, Walla Walla District, and the U.S. Forest Service.

REMARKS.--No temperature record Dec. 15 to Feb. 16 due to equipment malfunction.

EXYREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.5°C July 23; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											---	---
8											---	---
9											---	---
10											---	---
11											---	---
12											---	---
13											---	---
14											---	---
15											---	---
16											15.0	12.5
17											16.0	12.0
18											13.5	11.0
19											12.5	9.0
20											13.0	8.5
21											13.5	9.5
22											13.5	6.5
23											13.0	10.5
24											14.0	10.5
25											13.0	9.0
26											13.0	9.0
27											12.5	8.5
28											13.0	6.5
29											12.5	8.5
30											12.5	8.5
31											---	---
MONTH											16.0	6.5
YEAR	16.0	6.5										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

1336630 CROOKED FORK CREEK NEAR POWELL RANGER STATION, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.0	8.0	5.5	4.0	1.0	1.0			---	---	0.0	0.0
2	11.0	6.5	5.0	4.5	1.0	1.0			---	---	0.0	0.0
3	10.0	8.5	6.5	4.0	1.0	1.0			---	---	0.0	0.0
4	9.0	6.0	5.5	2.5	1.0	1.0			---	---	0.0	0.0
5	6.5	5.0	4.5	2.5	1.0	1.0			---	---	0.0	0.0
6	10.0	6.5	4.0	1.5	1.0	1.0			---	---	0.0	0.0
7	8.5	5.0	4.0	2.5	1.0	1.0			---	---	0.0	0.0
8	8.5	4.5	5.0	4.0	1.0	1.0			---	---	0.5	0.0
9	7.5	5.0	6.5	4.0	1.0	1.0			---	---	0.5	0.0
10	10.0	8.0	6.5	2.0	1.5	1.0			---	---	0.5	0.0
11	9.5	7.0	4.0	1.0	1.0	1.0			---	---	1.5	0.0
12	10.0	5.0	2.5	1.0	1.0	1.0			---	---	1.0	0.0
13	9.0	5.0	1.5	1.0	1.0	1.0			---	---	2.0	0.0
14	8.5	4.5	1.0	1.0	1.0	1.0			---	---	1.0	0.0
15	7.5	3.5	1.0	1.0	---	---			---	---	0.0	0.0
16	6.5	4.0	2.0	1.0	---	---			---	---	0.0	0.0
17	6.0	2.0	3.0	2.0	---	---			0.0	0.0	0.5	0.0
18	5.0	1.0	3.5	3.0	---	---			0.0	0.0	0.5	0.0
19	4.5	1.0	3.5	1.5	---	---			0.0	0.0	0.0	0.0
20	4.0	1.0	2.5	1.0	---	---			0.0	0.0	0.0	0.0
21	4.0	1.5	2.0	1.0	---	---			0.0	0.0	0.0	0.0
22	4.0	2.5	3.0	1.0	---	---			0.0	0.0	2.5	0.0
23	5.0	2.0	1.5	1.0	---	---			0.0	0.0	2.0	0.5
24	4.5	3.5	2.5	1.0	---	---			0.0	0.0	2.5	0.5
25	5.5	4.5	2.5	1.0	---	---			0.0	0.0	3.0	0.5
26	6.0	3.5	1.0	1.0	---	---			0.0	0.0	2.0	0.5
27	6.0	2.0	1.0	1.0	---	---			0.0	0.0	1.0	0.0
28	4.5	3.0	1.0	1.0	---	---			0.0	0.0	1.0	0.0
29	5.0	2.5	1.0	1.0	---	---			---	---	2.0	0.0
30	4.5	2.0	1.0	1.0	---	---			---	---	3.0	0.0
31	4.5	3.0	---	---	---	---			---	---	2.0	0.5
MONTH	11.0	1.0	6.5	1.0	1.5	1.0			0.0	0.0	3.0	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.0	0.5	8.0	4.0	10.5	7.0	16.0	11.5	20.5	12.5	13.5	8.0
2	2.0	0.0	7.0	4.0	10.5	6.5	18.0	12.5	19.0	13.0	13.5	8.5
3	1.5	0.0	6.0	3.5	10.0	6.5	13.5	10.5	20.0	13.0	15.0	10.5
4	4.0	0.5	5.0	3.5	13.0	7.5	11.5	10.0	20.5	14.5	16.0	11.0
5	3.5	0.0	6.0	2.5	14.0	8.0	16.5	9.5	20.5	13.0	19.0	13.5
6	3.0	0.0	5.0	2.5	14.5	9.5	15.0	11.0	20.5	13.5	18.0	12.0
7	2.0	0.0	7.0	3.5	12.5	10.0	16.0	8.0	20.5	13.5	17.0	11.0
8	1.0	0.0	8.0	5.0	12.0	10.0	17.5	10.0	21.0	13.0	16.0	11.0
9	1.0	0.0	8.5	5.5	12.0	8.5	15.5	12.0	20.0	12.5	14.0	8.0
10	2.0	0.0	7.5	6.0	11.5	8.5	18.0	11.5	20.0	13.0	14.0	8.0
11	4.0	0.0	7.0	5.0	10.5	8.5	17.0	11.0	20.0	12.5	14.0	8.0
12	5.0	0.5	8.0	3.5	11.5	7.0	18.0	12.5	20.5	12.5	14.5	8.5
13	3.5	1.0	10.0	5.0	11.5	7.5	18.0	12.5	21.0	13.0	14.5	8.0
14	5.0	1.5	7.0	5.0	11.5	9.0	18.5	10.5	18.0	14.0	13.0	8.0
15	5.0	0.5	6.5	4.0	13.0	8.5	19.5	11.5	21.0	13.5	12.0	9.5
16	4.0	2.0	5.0	4.0	13.5	8.5	19.5	12.5	21.0	13.5	11.5	9.0
17	4.5	0.5	4.5	2.5	15.5	8.5	16.0	13.5	20.5	13.0	11.5	9.0
18	4.5	0.5	6.5	3.0	16.5	9.5	14.5	13.0	21.0	13.5	11.5	7.0
19	5.5	1.5	6.0	4.0	16.0	10.0	19.0	12.0	21.0	13.5	11.0	8.5
20	6.0	2.0	7.5	4.5	14.5	12.0	19.0	12.0	21.0	14.0	10.5	9.0
21	5.5	2.5	7.5	4.5	15.5	10.0	19.0	14.0	19.5	14.0	10.5	8.0
22	7.0	2.0	9.0	4.0	17.0	10.0	20.5	14.0	19.5	13.5	8.5	7.5
23	8.0	2.0	7.5	6.0	17.0	10.5	22.5	15.5	18.5	12.0	10.0	6.5
24	8.0	2.0	7.0	5.5	17.5	10.5	18.0	15.0	14.5	12.5	9.0	7.5
25	7.5	2.5	7.0	5.5	18.5	11.5	16.5	14.5	15.0	11.5	7.5	6.5
26	6.5	3.0	7.0	4.0	18.0	12.0	17.5	13.5	13.0	11.0	10.5	6.5
27	7.0	2.0	7.0	4.5	18.0	12.0	20.0	12.5	13.5	10.0	8.0	5.5
28	8.0	2.5	6.0	3.0	17.5	10.5	19.5	14.0	11.0	8.5	8.5	7.5
29	7.0	3.0	7.5	3.5	18.0	12.5	19.5	14.0	13.0	10.5	8.5	7.5
30	8.0	3.5	9.0	3.0	17.5	10.5	18.5	11.0	10.5	9.5	8.0	7.0
31	---	---	11.5	6.0	---	---	19.5	12.0	12.0	8.0	---	---
MONTH	8.0	0.0	11.5	2.5	18.5	6.5	22.5	8.0	21.0	8.0	19.0	5.5
YEAR	22.5	0.0										

13337000 LOCHSA RIVER NEAR LOWELL, ID

LOCATION.--Lat 46°09'02", long 115°35'11", in SW¼SE¼ sec.33, T.33 N., R.7 E., Idaho County, Hydrologic Unit 17060303, Clearwater National Forest, on right bank 0.7 mi (1.1 km) upstream from Lowell, 0.9 mi (1.4 km) upstream from confluence with Selway River, 1.2 mi (1.9 km) downstream from Pete King Creek, and 19 mi (30.6 km) east of Kooskia.

DRAINAGE AREA.--1,180 mi² (3,060 km²), approximately. Mean altitude, 5,250 ft (1,600 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to September 1912, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 1,452.98 ft (442.868 m) above mean sea level, unadjusted. Prior to Nov. 21, 1930, nonrecording gages at site 1 mi (1.6 km) upstream at different datums.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--50 years, 2,906 ft³/s (82.3 m³/s), 33.44 in/yr (849 mm/yr), 2,105,000 acre-ft/yr (2.60 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,100 ft³/s (994 m³/s) June 8, 1964 (gage height, 13.50 ft or 4.115 m), from rating curve extended above 17,000 ft³/s (481 m³/s); minimum, probably less than 100 ft³/s (2.8 m/s) Jan. 8, 1937, during period of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,400 ft³/s (295 m³/s) May 2 (gage height, 7.27 or 2.216 m), no peak above base of 12,000 ft³/s (340 m³/s); minimum, 278 ft³/s (7.87 m³/s) Aug. 21, 22 (gage height, 1.72 ft or 0.524 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-con'rol method used Oct. 1 to Apr. 6; stage-discharge relation affected by ice Dec. 16 to Jan. 9)

1.6	247	4.0	2,920
1.7	300	6.0	7,190
2.0	486	8.0	12,700
2.5	886	10.0	19,500
3.0	1,420		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	568	700	599	475	465	646	859	8350	4990	1130	528	1120
2	593	907	538	445	470	621	823	9940	5790	1140	500	814
3	700	757	515	415	465	590	771	9010	5210	1100	486	663
4	680	681	500	390	460	562	780	7510	5030	1070	466	601
5	640	643	439	380	450	570	990	6180	5520	1130	453	548
6	650	613	456	380	440	570	1370	5360	5750	1080	447	514
7	620	589	572	380	440	642	1960	4880	6020	1040	427	482
8	595	570	595	390	450	760	2760	5250	5820	971	408	460
9	574	570	652	395	460	826	3560	5540	4970	915	395	445
10	560	566	587	415	495	798	3130	6530	4170	878	389	431
11	585	556	545	455	540	717	2730	7090	3760	832	377	415
12	599	536	485	485	570	704	2610	6110	3580	806	364	400
13	578	462	455	510	620	703	2750	6140	3300	788	352	388
14	554	373	404	560	640	676	2580	6490	3210	763	340	378
15	535	403	403	610	630	614	2450	5080	3040	729	335	373
16	523	571	395	670	620	603	2700	5140	2740	695	324	420
17	517	674	390	710	641	630	2560	5140	2550	671	323	536
18	514	822	390	740	641	629	2500	4840	2350	729	311	555
19	503	769	395	750	657	637	2450	4970	2200	924	300	484
20	489	667	405	740	655	613	2350	4930	2140	832	289	585
21	494	592	415	720	731	611	2430	5010	2030	720	284	913
22	494	549	425	690	797	635	2800	5140	1890	720	294	915
23	500	601	450	640	744	731	3820	5190	1740	663	300	820
24	487	530	475	600	667	787	5410	5820	1650	624	323	742
25	623	618	500	530	614	789	7160	5820	1540	754	500	768
26	661	662	530	510	597	780	8400	5540	1460	850	601	805
27	586	398	550	485	587	1020	7480	5450	1360	754	868	744
28	546	305	560	465	605	1040	6920	5080	1300	671	624	748
29	528	373	550	450	---	912	7060	4730	1240	617	632	1050
30	524	630	540	440	---	858	7280	4400	1170	571	1030	1280
31	515	---	510	450	---	858	---	4340	---	549	1560	---
TOTAL	17535	17687	15225	16275	16151	22152	101443	181600	97590	25716	14825	19406
MEAN	566	590	491	525	577	715	3381	5858	3253	830	478	647
MAX	700	907	652	750	797	1040	8400	9940	6020	1140	1560	1280
MIN	487	305	390	380	440	570	771	4340	1170	549	284	373
CFSM	.48	.50	.42	.45	.49	.61	2.87	4.96	2.76	.70	.41	.55
IN.	.55	.56	.48	.51	.51	.70	3.20	5.73	3.08	.81	.47	.61
AC-FT	34780	35080	30200	32280	32040	43940	201200	360200	193500	51010	29410	38490

CAL YR 1976 TOTAL 1308306 MEAN 3575 MAX 22900 MIN 305 CFSM 3.03 IN 41.24 AC-FT 2595000
WTR YR 1977 TOTAL 545595 MEAN 1495 MAX 9940 MIN 284 CFSM 1.27 IN 17.20 AC-FT 1082000

CLEARWATER RIVER BASIN

13338500 SOUTH FORK CLEARWATER RIVER AT STITES, ID

LOCATION.--Lat 46°05'12", long 115°58'32", in SE¼NE¼ sec.29, T.32 N., R.4 E., Idaho County, Hydrologic Unit 17060305, on left bank at Stites, 0.4 mi (0.6 km) upstream from county road bridge, 0.4 mi (0.6 km) downstream from Cottonwood Creek, and at mile 4.0 (6.4 km).

DRAINAGE AREA.--1,150 mi² (2,980 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to April 1912, October 1964 to current year. Published as "at Kooskia" 1910-12.

REVISED RECORDS.--WSP 1317: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft or 396 m (from topographic map). October 1910 to April 1912, nonrecording gage 3.6 mi (5.8 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. No regulation above station.

AVERAGE DISCHARGE.--14 years (1911, 1965-77), 1,092 ft³/s (30.9 m³/s), 12.90 in/yr (327.7 mm/yr), 791,200 acre-ft/yr (976 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,700 ft³/s (303 m³/s) May 29, 1912 (gage height, 6.00 ft or 1.829 m, site and datum then in use); minimum, 72 ft³/s (2.04 m³/s) Nov. 28, 1977 (gage height, 2.41 ft or 0.735 m); minimum gage height, 2.40 ft (0.732 m) Dec. 18, 1965 (ice affected).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 10.3 ft (3.14 m), present site and datum (discharge, 17,500 ft³/s or 496 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,690 ft³/s (105 m³/s) May 2 (gage height, 5.49 ft or 1.673 m), only peak above base of 3,300 ft³/s (93.5 m³/s); minimum, 72 ft³/s (2.04 m³/s) Nov. 28 (gage height, 2.41 ft or 0.735 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 3-5, Dec. 12 to Jan. 20, Jan. 27 to Feb. 8)

2.4	69	3.5	699
2.5	96	4.0	1,250
2.7	169	5.0	2,670
3.0	324	6.0	4,570

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	295	272	185	195	272	374	2860	1750	477	231	400
2	272	441	256	170	200	272	381	3350	1890	485	222	290
3	374	407	250	165	205	267	362	2820	1690	489	214	250
4	362	362	240	160	200	261	355	2430	1720	495	208	220
5	313	325	245	160	195	256	484	2060	1810	537	200	198
6	301	313	245	160	190	256	628	1840	1810	495	189	185
7	295	295	256	160	190	278	859	1710	1890	467	184	175
8	284	289	295	165	195	301	1300	1690	1990	420	178	170
9	272	278	289	170	210	313	2160	1670	1870	397	170	161
10	267	272	267	175	230	313	1840	1610	1500	395	164	156
11	295	267	256	185	245	272	1600	1620	1450	382	159	154
12	381	261	245	195	250	278	1520	1620	1390	359	155	156
13	313	240	238	215	272	295	1740	1600	1360	348	150	152
14	289	191	230	240	301	284	1560	1670	1370	337	146	150
15	278	210	225	265	272	267	1300	1520	1300	322	139	151
16	267	284	215	300	256	267	1520	1500	1140	308	140	209
17	261	343	205	330	267	245	1360	1790	1030	296	136	319
18	261	331	180	365	256	289	1240	1990	949	303	130	310
19	256	355	150	380	261	307	1240	2130	884	346	128	253
20	245	301	140	380	261	301	1180	2290	936	349	123	245
21	250	261	145	362	289	295	1280	2180	900	311	121	466
22	250	256	150	325	295	307	1470	2130	798	303	121	508
23	250	284	180	295	286	362	1950	2100	739	301	126	444
24	245	250	215	261	267	441	2520	2270	677	287	137	363
25	256	256	235	261	250	421	2960	2170	613	448	222	361
26	355	284	250	225	250	394	3240	1970	600	457	313	344
27	355	182	260	215	245	387	2820	2000	564	365	376	312
28	313	94	255	205	250	381	2540	2030	539	306	321	300
29	289	153	250	200	---	355	2510	1920	521	273	268	442
30	289	289	235	195	---	337	2460	1730	495	254	328	695
31	284	---	210	195	---	343	---	1640	---	241	610	---
TOTAL	8989	8369	7044	7264	6781	9672	46753	62310	36185	11553	6309	8539
MEAN	290	279	229	234	242	312	1558	2010	1206	373	204	285
MAX	381	441	295	380	301	441	3240	3350	1990	537	610	695
MIN	245	94	140	160	190	256	355	1500	495	241	121	150
CFSM	.25	.24	.20	.20	.21	.27	1.36	1.75	1.05	.32	.18	.25
IN.	.29	.27	.23	.23	.22	.31	1.51	2.02	1.17	.37	.20	.28
AC-FT	17830	16600	14050	14410	13450	19180	92730	123600	71770	22920	12510	16940

CAL YR 1976 TOTAL 534898 MEAN 1461 MAX 9230 MIN 94 CFSM 1.27 IN 17.30 AC-FT 1061000
WTR YR 1977 TOTAL 219808 MEAN 602 MAX 3350 MIN 94 CFSM .52 IN 7.11 AC-FT 436000

13340000 CLEARWATER RIVER AT OROFINO, ID

LOCATION.--Lat 46°28'43", long 116°15'23", in SW¼SE¼NW¼ sec.7, T.36 N., R.2 E., Clearwater County, Hydrologic Unit 17060306, on right bank 56 ft (17 m) upstream from State Highway 7 bridge at Orofino and at mile 44.6 (71.8 km).

DRAINAGE AREA.--5,580 mi^2 (14,450 km^2), approximately.

PERIOD OF RECORD.--October 1930 to September 1938, October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.80 ft (301.996 m) above mean sea level (levels by Idaho Department of Highways). Prior to Sept. 30, 1938, nonrecording gage at site 0.1 mi (0.2 km) downstream at different datum.

REMARKS.--Records good except those for December and January, which are fair.

AVERAGE DISCHARGE.--21 years, 8,909 ft^3/s (252.3 m^3/s), 21.68 in/yr (551 mm/yr), 6,455,000 acre-ft/yr (7,959 hm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,300 ft^3/s (2,470 m^3/s) June 2, 1972 (gage height, 18.84 ft or 5.742 m, present datum); minimum observed, probably less than 250 ft^3/s (7.08 m^3/s) Jan. 8, 1937, during period of ice effect; minimum gage height, 2.20 ft (0.671 m) Nov. 29, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 20.32 ft (6.194 m) present site and datum (discharge, 99,700 ft^3/s or 2,820 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,100 ft^3/s (881 m^3/s) May 2 (gage height, 10.84 ft or 3.304 m), no peak above base of 30,000 ft^3/s (850 m^3/s); minimum, 790 ft^3/s (22.4 m^3/s) Nov. 29 (gage height, 2.20 ft or 0.671 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Feb. 18; stage-discharge relation affected by ice
Dec. 16-26, Jan. 1-18, Feb. 1-2)

Oct. 1 to Feb. 16		Feb. 17 to Sept. 30			
2.3	790	2.2	910	7.0	12,400
2.6	1,210	3.0	2,110	9.0	21,400
3.0	1,810	4.0	3,840	11.0	32,000
4.0	3,460	5.0	6,020		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2020	2020	1990	1350	1500	2390	3230	23700	14100	3690	1840	4160
2	1980	2910	1760	1200	1530	2400	3230	28600	17300	3620	1780	2950
3	2260	2870	1650	1100	1610	2330	3070	27200	16400	3650	1700	2370
4	2500	2580	1680	1020	1520	2250	2980	23000	15500	3600	1660	2080
5	2390	2420	1760	1000	1500	2190	3560	18900	17000	3820	1610	1900
6	2250	2290	1690	970	1440	2150	4780	16100	17600	3800	1540	1770
7	2250	2200	1790	970	1380	2180	6490	14300	18200	3580	1510	1670
8	2230	2130	2140	980	1460	2500	9090	14300	17600	3360	1480	1570
9	2130	2080	2220	990	1560	2840	12600	14900	16800	3120	1420	1490
10	2070	2050	2210	1000	1640	3030	11900	16600	13300	3000	1360	1400
11	2040	2050	2030	1020	1750	2770	10000	19700	11800	2910	1330	1390
12	2260	2020	1880	1150	1890	2600	9180	17500	11400	2770	1280	1340
13	2310	1950	1750	1300	2060	2620	9510	16800	10400	2670	1240	1300
14	2170	1700	1590	1500	2290	2570	9410	18100	10000	2600	1190	1250
15	2070	1500	1470	1700	2190	2450	8600	16700	9740	2500	1140	1240
16	1990	1720	1420	2000	2150	2300	8750	14900	9090	2400	1110	1250
17	1950	2300	1370	2300	2080	2310	8870	15100	8260	2310	1080	1690
18	1920	2480	1320	2700	2100	2360	8320	15500	7590	2270	1050	2010
19	1890	2850	1280	2920	2180	2340	8110	15100	7030	2600	1010	1870
20	1840	2530	1220	3200	2280	2430	7820	15400	6800	2820	982	1710
21	1830	2250	1230	2750	2400	2340	7850	14800	6690	2570	942	2480
22	1830	2050	1400	2370	2670	2310	8440	15000	6600	2360	914	3280
23	1810	2070	1550	2150	2740	2530	10700	14900	5710	2330	914	3080
24	1810	2080	1700	1980	2570	3090	15200	16700	5350	2250	996	2690
25	1860	1940	1900	1900	2370	3230	20400	17300	5020	2330	1190	2540
26	2500	2300	2000	1770	2250	3160	24700	16500	4730	2980	1810	2630
27	2400	1980	2140	1760	2210	3280	23100	16200	4480	2860	2250	2590
28	2160	1100	2040	1750	2220	3940	21000	15700	4240	2430	2370	2430
29	2020	922	1770	1670	---	3580	20800	14700	4000	2190	2370	2810
30	1980	1480	1530	1550	---	3250	21000	13300	3840	2040	2550	4100
31	1960	---	1420	1520	---	3140	---	12700	---	1920	4360	---
TOTAL	64680	62822	52900	51540	55540	82860	322690	530400	306560	87350	47978	65040
MEAN	2086	2094	1706	1663	1984	2673	10760	17110	10220	2818	1548	2168
MAX	2500	2910	2220	3200	2740	3940	24700	28600	18200	3820	4360	4160
MIN	1810	922	1220	970	1380	2150	2980	12700	3840	1920	914	1240
CFSM	.37	.38	.31	.30	.36	.48	1.93	3.07	1.83	.51	.28	.39
IN.	.43	.42	.35	.34	.37	.55	2.15	3.54	2.04	.58	.32	.43
AC-FT	128300	124600	104900	102200	110200	164400	640100	1052000	608100	173300	95160	129000

CAL YR 1976 TOTAL 4240742 MEAN 11590 MAX 67300 MIN 922 CFSM 2.08 IN 28.27 AC-FT 8412000
WTR YR 1977 TOTAL 1730360 MEAN 4741 MAX 28600 MIN 914 CFSM .85 IN 11.54 AC-FT 3432000

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID

LOCATION.--Lat 46°50'26", long 115°37'11", in SE¼NE¼ sec.6, T.40 N., R.7 E., Clearwater County, Hydrologic Unit 17060307, Clearwater National Forest, on left bank immediately upstream from forest road bridge, 0.1 mi (0.2 km) upstream from Beaver Creek, 1.7 mi (2.7 km) downstream from Canyon ranger station, and at mile 58.0 (93.3 km).

DRAINAGE AREA.--1,360 mi² (3,520 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,660.00 ft (505.968 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--10 years (1968-77), 3,775 ft³/s (107 m³/s), 37.69 in/yr (957 mm/yr), 2,735 acre-ft/yr (3,372 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,300 ft³/s (915 m³/s) June 16, 1974 (gage height, 16.6 ft or 5.060 m); maximum gage height, 17.04 ft (5.194 m) June 1, 1972; minimum, 200 ft³/s (5.66 m³/s) Dec. 5, 1972 (gage height, 5.00 ft or 1.524 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,940 ft³/s (283 m³/s) May 2 (gage height, 10.78 ft or 3.286 m), no peak above base of 12,000 ft³/s (340 m³/s); minimum, 345 ft³/s (9.77 m³/s) Nov. 28 (gage height, 5.27 ft or 1.606 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 26 to June 12; stage-discharge relation affected by ice Dec. 3,Dec. 14-25, Jan. 1-17, Jan. 27 to Feb. 20)

5.2	320	8.0	3,320
5.5	480	10.0	7,340
6.0	840	12.0	13,100
7.0	1,880		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	888	1420	824	760	690	1060	1410	7710	4580	1410	852	1320
2	933	1660	728	730	710	1020	1310	9570	4970	1380	820	937
3	1100	1180	695	690	720	952	1240	8970	4600	1340	811	837
4	991	1020	689	670	730	933	1260	7990	4520	1340	792	794
5	942	952	720	650	710	923	1670	6720	4620	1410	778	904
6	962	914	824	640	710	933	2480	5920	4680	1350	773	857
7	942	880	840	630	720	1260	3500	5440	4690	1310	756	756
8	904	864	971	620	750	1650	4850	5750	5220	1250	737	742
9	888	864	1120	640	780	1640	6100	6040	4460	1210	730	731
10	880	848	991	670	810	1530	5030	6330	3830	1180	722	701
11	888	832	888	720	870	1310	4170	6580	3560	1140	702	679
12	914	800	608	790	930	1270	3850	6060	3330	1120	695	663
13	880	673	688	850	970	1240	4150	6020	3170	1120	685	650
14	856	540	600	930	1000	1160	3760	6160	3130	1130	663	628
15	840	712	580	990	1030	1040	3460	5790	2950	1070	667	620
16	840	1060	570	1070	1070	1030	3710	5380	2750	1020	654	672
17	832	1060	560	1150	1090	1080	3370	5700	2560	1030	635	986
18	824	1230	560	1340	1120	1050	3270	5710	2420	1240	628	886
19	816	1070	570	1590	1150	1060	3110	5650	2290	1330	612	740
20	816	914	585	1560	1200	1020	2970	5520	2280	1140	598	877
21	816	824	605	1230	1310	971	3050	5440	2140	1040	586	1230
22	816	840	640	1030	1420	1010	3430	5520	2030	1060	605	1520
23	816	848	670	971	1330	1260	4580	5440	1950	1030	635	1340
24	808	792	710	904	1180	1430	6200	5600	1830	945	665	1130
25	933	1050	750	872	1070	1390	7860	5460	1750	1240	935	1140
26	1100	1050	942	846	1010	1380	8970	5300	1670	1230	942	1070
27	952	585	1090	820	991	1860	7910	5240	1600	1030	1350	976
28	880	430	1110	760	1000	1820	7180	5050	1550	951	969	1010
29	832	650	848	700	---	1550	7010	5080	1490	903	1080	1510
30	848	888	784	680	---	1410	7080	4740	1440	878	1440	1600
31	840	---	840	680	---	1410	---	4440	---	869	2200	---
TOTAL	27577	27450	23800	27185	27071	38652	127940	186320	92050	35696	25717	28508
MEAN	890	915	768	877	967	1247	4265	6010	3068	1151	830	950
MAX	1100	1660	1120	1590	1420	1860	8970	9570	5220	1410	2200	1600
MIN	808	430	560	620	690	923	1240	4440	1440	869	586	620
CFSM	.65	.67	.57	.65	.71	.92	3.14	4.42	2.26	.85	.61	.70
IN.	.75	.75	.65	.74	.74	1.06	3.50	5.10	2.52	.98	.70	.78
AC-FT	54700	54450	47210	53920	53700	76670	253800	369600	182600	70800	51010	56550

CAL YR 1976 TOTAL 1412037 MEAN 3858 MAX 25100 MIN 430 CFSM 2.84 IN 38.62 AC-FT 2801000
WTR YR 1977 TOTAL 667966 MEAN 1830 MAX 9570 MIN 430 CFSM 1.35 IN 18.27 AC-FT 1325000

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.
PERIOD OF DAILY RECORD.--
  WATER TEMPERATURES: February 1970 to current year.
INSTRUMENTATION.--Temperature recorder since February 1970.
COOPERATION.--Temperature record furnished by U.S. Corps of Engineers and reviewed by U.S. Geological Survey.
EXTREMES FOR PERIOD OF DAILY RECORD.--
  WATER TEMPERATURES: Maximum, 23.0°C Aug. 4, 5, 1971; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
  WATER TEMPERATURES: Maximum, 22.5°C July 23, 24; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)
NOV 11...	0920	793	48	3.5	4.0
JAN 04...	0900	670	52	2.0	.0
FEB 15...	1145	1030	31	5.0	.0
MAR 29...	0820	1540	23	5.0	3.0
MAY 17...	0840	5900	27	9.0	6.5
JUN 29...	0900	1450	39	14.5	15.5
AUG 14...	0835	670	51	19.0	21.0
SEP 20...	0800	808	48	11.0	12.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	12.0	5.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5
2	13.0	12.0	6.0	5.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.5
3	12.5	11.5	6.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5
4	11.5	10.0	7.0	6.5	0.5	0.0	0.0	0.0	0.0	0.0	1.5	0.5
5	10.0	9.0	7.5	7.0	0.5	0.0	0.0	0.0	0.0	0.0	1.5	1.0
6	9.0	8.5	7.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.0
7	9.0	8.5	6.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.0
8	9.5	8.0	5.5	5.0	0.5	0.0	0.0	0.0	0.0	0.0	1.5	1.0
9	9.0	8.0	5.5	5.0	0.5	0.0	0.0	0.0	0.0	0.0	1.5	1.0
10	9.0	8.0	6.0	5.5	0.5	0.0	0.0	0.0	0.0	0.0	1.5	1.0
11	10.0	9.0	6.5	5.0	0.5	0.5	0.0	0.0	0.0	0.0	2.0	1.0
12	10.0	10.0	5.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0	2.0	1.5
13	10.5	9.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.5
14	9.5	8.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	2.0	1.0
15	9.0	7.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0
16	8.0	6.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.5
17	7.0	5.5	2.5	2.0	0.0	0.0	0.0	0.0	0.5	0.0	2.5	1.5
18	6.0	4.5	4.5	3.0	0.0	0.0	0.0	0.0	0.5	0.0	2.0	1.5
19	5.0	3.0	4.5	4.0	0.0	0.0	0.0	0.0	0.5	0.0	2.0	1.5
20	4.0	2.5	4.5	3.5	0.0	0.0	0.0	0.0	0.5	0.0	2.0	1.5
21	3.5	2.5	3.5	2.5	0.0	0.0	0.0	0.0	0.5	0.0	2.5	1.5
22	3.5	2.5	2.5	2.0	0.0	0.0	0.0	0.0	0.5	0.5	4.0	2.5
23	3.5	3.0	2.0	2.0	0.0	0.0	0.0	0.0	1.0	0.5	4.5	3.5
24	4.0	3.5	2.0	1.5	0.0	0.0	0.0	0.0	1.0	0.5	4.5	3.5
25	4.5	4.0	2.5	1.5	0.0	0.0	0.0	0.0	1.0	0.5	4.5	3.5
26	6.0	4.5	2.0	1.0	0.0	0.0	0.0	0.0	1.0	0.5	4.5	4.0
27	6.0	6.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	4.0	3.0
28	6.5	6.0	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.5	2.5	2.0
29	6.0	5.5	0.5	0.0	0.0	0.0	0.0	0.0	---	---	3.0	2.0
30	6.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	4.0	2.5
31	5.5	5.0	---	---	0.0	0.0	0.0	0.0	---	---	4.0	3.0
MONTH	13.5	2.5	7.5	0.0	0.5	0.0	0.0	0.0	1.0	0.0	4.5	0.5

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.0	2.0	9.5	9.0	12.5	11.5	19.0	16.5	20.0	19.0	14.5	12.5
2	3.0	2.0	9.5	7.5	12.5	11.5	19.0	17.0	20.5	19.5	14.5	13.5
3	3.5	3.0	7.5	7.0	12.0	11.5	18.0	16.0	21.0	20.0	15.5	14.5
4	5.5	3.5	7.0	5.5	14.0	11.5	17.5	15.0	21.0	20.0	16.5	15.0
5	7.5	4.5	6.0	5.5	15.0	13.5	15.5	13.5	21.5	20.0	17.5	16.5
6	6.5	4.5	6.0	5.5	16.5	15.0	16.0	14.0	21.5	20.5	18.0	17.0
7	5.5	4.0	8.0	6.0	17.0	16.0	17.0	14.0	21.5	20.5	18.0	16.5
8	5.5	4.5	9.0	8.0	16.0	14.5	18.5	15.0	21.0	20.5	17.0	15.5
9	6.0	4.5	10.0	8.5	14.0	13.0	18.5	16.5	21.0	20.0	15.5	14.5
10	5.0	4.5	10.0	8.0	14.0	13.5	18.5	17.0	21.0	20.0	14.5	14.0
11	5.0	4.5	8.5	7.5	14.0	13.5	19.0	16.5	21.0	19.5	15.0	13.5
12	6.0	5.0	9.0	8.0	14.0	13.0	19.0	17.0	21.0	19.5	15.0	14.0
13	6.0	5.0	10.5	9.0	14.5	13.0	19.0	17.0	21.0	20.0	14.5	13.5
14	5.5	4.5	10.5	8.0	15.0	14.0	18.5	16.0	21.0	20.0	14.5	13.5
15	5.5	4.5	8.5	7.0	15.5	14.0	19.5	16.5	21.5	20.0	14.5	13.5
16	5.5	5.0	7.5	7.0	16.0	14.5	20.0	18.0	21.5	20.0	14.0	13.5
17	5.0	4.0	7.0	6.0	16.5	15.0	20.0	18.0	21.5	20.5	13.0	12.5
18	5.0	4.5	7.0	5.5	18.0	15.5	19.0	17.0	21.5	20.5	13.0	12.0
19	5.0	4.5	8.0	7.5	18.0	16.5	18.0	16.0	21.0	20.5	13.5	12.5
20	6.0	5.0	9.0	7.5	17.5	16.0	19.5	16.0	21.5	20.0	12.5	12.0
21	7.0	6.0	9.5	9.0	18.0	15.5	20.0	18.0	20.5	19.5	12.0	11.5
22	8.0	6.5	10.0	8.5	18.0	16.0	21.0	19.5	20.5	19.0	11.5	9.5
23	8.5	7.5	10.5	9.5	18.5	15.5	22.5	20.5	19.5	18.5	10.5	9.0
24	8.5	7.5	9.5	9.0	19.0	16.0	22.5	20.0	18.5	16.5	10.5	10.0
25	8.5	7.5	10.0	9.0	19.5	16.5	20.0	18.5	17.0	16.0	10.0	9.5
26	9.0	7.5	9.5	8.5	20.0	17.0	19.5	17.5	16.5	15.0	9.5	9.0
27	7.5	6.5	8.5	8.0	19.0	17.0	21.0	18.5	15.0	14.5	10.0	9.5
28	8.0	7.0	8.0	6.5	19.0	16.5	21.0	19.5	14.5	13.5	10.5	10.0
29	8.5	8.0	7.5	6.0	19.0	16.5	21.0	19.0	14.5	13.5	11.0	10.5
30	9.0	8.0	9.0	7.5	19.0	16.0	19.0	18.0	13.5	13.0	10.5	10.0
31	---	---	11.5	9.0	---	---	19.0	18.0	13.5	12.0	---	---
MONTH	9.0	2.0	11.5	5.5	20.0	11.5	22.5	13.5	21.5	12.0	18.0	9.0
YEAR	22.5	0.0										

13340950 DWORSHAK RESERVOIR NEAR AHSAHKA, ID

LOCATION.--Lat 46°31'00", long 116°17'30", in SW¼SE¼ sec.26, T.37 N., R.1 E., Nez Perce County, Hydrologic Unit 17060308, at log-handling area on Dworshak Dam, 1.5 mi (2.4 km) northeast of Ahsahka, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--2,440 mi² (6,320 km²), approximately. Mean altitude, 4,220 ft (1,286 m).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by straight-axis concrete gravity dam. Total capacity is 3,459,000 acre-ft (4,265 hm³) between elevations 970.0 ft or 295.67 m (bottom of bypass valve) and 1,599.5 ft or 487.53 m (maximum pool elevation). Inactive storage for minimum power head is 1,452,000 acre-ft or 1,790 hm³ (elevation, 1,445.0 ft or 440.44 m). Storage began Sept. 27, 1971. Dworshak Dam is used to regulate annual floodwaters of the North Fork Clearwater River and for power generation.

COOPERATION.--Gage-height record and capacity table furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,218,000 acre-ft (3,968 hm³) Oct. 1 (elevation, 1,586.04 ft or 483.425 m); minimum, 2,120,000 acre-ft (2,614 hm³) Mar. 11 (elevation, 1,510.44 ft or 460.382 m).

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3215000	3140000	2898000	2650000	2316000	2170000	2168000	2501000	2850000	2938000	2748000	2643000
2	3213000	3139000	2884000	2640000	2304000	2165000	2171000	2528000	2843000	2930000	2747000	2644000
3	3212000	3135000	2870000	2620000	2291000	2153000	2173000	2552000	2844000	2931000	2745000	2644000
4	3209000	3130000	2856000	2601000	2274000	2143000	2175000	2574000	2855000	2933000	2743000	2645000
5	3206000	3126000	2841000	2582000	2262000	2144000	2179000	2592000	2866000	2925000	2740000	2646000
6	3204000	3123000	2828000	2563000	2257000	2145000	2187000	2606000	2868000	2917000	2740000	2645000
7	3201000	3119000	2815000	2543000	2245000	2142000	2197000	2620000	2871000	2908000	2740000	2644000
8	3199000	3116000	2802000	2525000	2233000	2144000	2211000	2634000	2884000	2898000	2739000	2645000
9	3196000	3113000	2789000	2523000	2221000	2133000	2228000	2650000	2895000	2889000	2739000	2645000
10	3193000	3111000	2778000	2511000	2209000	2120000	2241000	2666000	2904000	2881000	2739000	2645000
11	3191000	3107000	2775000	2497000	2196000	2122000	2252000	2682000	2912000	2871000	2739000	2644000
12	3188000	3104000	2773000	2484000	2197000	2124000	2262000	2697000	2920000	2861000	2738000	2644000
13	3186000	3101000	2766000	2474000	2199000	2126000	2272000	2712000	2927000	2852000	2738000	2644000
14	3183000	3098000	2759000	2461000	2194000	2128000	2282000	2727000	2934000	2843000	2738000	2644000
15	3180000	3096000	2753000	2459000	2192000	2129000	2290000	2740000	2941000	2835000	2730000	2643000
16	3177000	3086000	2751000	2457000	2192000	2130000	2299000	2753000	2947000	2835000	2723000	2643000
17	3174000	3075000	2749000	2452000	2181000	2132000	2307000	2768000	2952000	2837000	2714000	2644000
18	3171000	3064000	2746000	2445000	2170000	2133000	2314000	2783000	2957000	2831000	2706000	2645000
19	3168000	3052000	2743000	2440000	2171000	2135000	2321000	2798000	2961000	2824000	2697000	2645000
20	3165000	3043000	2736000	2432000	2172000	2136000	2328000	2812000	2966000	2817000	2696000	2637000
21	3162000	3034000	2729000	2425000	2175000	2137000	2334000	2826000	2970000	2809000	2695000	2630000
22	3159000	3023000	2717000	2426000	2178000	2139000	2343000	2839000	2969000	2801000	2685000	2622000
23	3157000	3009000	2706000	2426000	2173000	2140000	2354000	2837000	2968000	2793000	2670000	2620000
24	3155000	2994000	2695000	2413000	2164000	2143000	2370000	2833000	2966000	2786000	2657000	2622000
25	3154000	2982000	2693000	2399000	2165000	2146000	2389000	2827000	2966000	2781000	2644000	2623000
26	3153000	2971000	2691000	2379000	2166000	2148000	2411000	2821000	2969000	2774000	2641000	2616000
27	3150000	2971000	2683000	2360000	2168000	2153000	2430000	2824000	2969000	2766000	2643000	2605000
28	3147000	2971000	2674000	2341000	2169000	2158000	2448000	2838000	2962000	2758000	2643000	2593000
29	3145000	2971000	2665000	2342000	---	2161000	2465000	2850000	2956000	2750000	2641000	2582000
30	3142000	2911000	2656000	2341000	---	2163000	2482000	2861000	2948000	2750000	2638000	2572000
31	3139000	---	2653000	2329000	---	2166000	---	2857000	---	2751000	2642000	---
MAX	3215000	3140000	2898000	2650000	2316000	2170000	2482000	2861000	2970000	2938000	2748000	2646000
MIN	3139000	2911000	2653000	2329000	2164000	2120000	2168000	2501000	2843000	2750000	2638000	2572000
(†)	1581.46	1567.55	1550.59	1527.13	1514.51	1514.24	1538.55	1564.11	1569.83	1557.18	1549.84	1544.97
(‡)	-79	-228	-258	-324	-160	-3	+316	+375	+91	-197	-109	-70

CAL YR 1976............. ‡ -30
WTR YR 1977............. ‡ -646

† Elevation, in feet, at end of month.
‡ Change in contents, in thousands of acre-feet.

13341050 CLEARWATER RIVER NEAR PECK, ID

LOCATION.--Lat 46°30'00", long 116°23'30", in NE¼NE¼ sec.1, T.36 N., R.1 W., Nez Perce County, Hydrologic Unit 17060306, on left bank 2 mi (3.2 km) upstream from Big Canyon Creek, 2.2 mi (3.5 km) northeast of Peck, 3 mi (4.8 km) downstream from North Fork Clearwater River, and at mile 37.4 (60.2 km).

DRAINAGE AREA.--8,040 mi² (20,800 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 930 ft or 283 m (from topographic map).

REMARKS.--Records excellent. Flow regulated by Dworshak Reservoir beginning September 1971.

AVERAGE DISCHARGE.--13 years, 15,720 ft³/s (445.2 m³/s), 11,390,000 acre-ft/yr (14,040 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 127,200 ft³/s (3,600 m³/s) June 16, 1974 (gage height, 23.66 ft or 7.212 m); maximum gage height, 25.00 ft (7.620 m) Dec. 28, 1967 (ice jam); minimum discharge, 1,260 ft³/s (35.7 m³/s) Oct. 31, 1971 (gage height, 2.24 ft or 0.683 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 23.95 ft (7.300 m), from floodmark (discharge, 118,000 ft³/s or 3,340 m³/s), from rating extended above 89,100 ft³/s (2,520 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,500 ft³/s (920 m³/s) May 2 (gage height, 11.72 ft or 3.572 m); minimum, 2,110 ft³/s (59.8 m³/s) Aug. 21, 22 (gage height, 2.99 ft or 0.911 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.0	2,120	7.0	11,180
4.0	3,650	9.0	19,060
5.0	5,690	11.0	28,600
6.0	8,300	13.0	40,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5160	4550	9530	3810	9120	3490	4270	24500	24200	9760	3920	5300
2	4520	5980	9560	6390	9080	6510	4280	29600	27200	9660	3500	4040
3	4820	6540	9460	11100	9250	9690	4120	28400	22700	4650	3880	3420
4	5170	6250	9510	11400	10900	8810	4020	24100	16300	4540	3800	3090
5	5180	5910	9600	11600	8910	3350	4590	19900	17800	9430	4030	2910
6	4750	5270	9510	11400	4960	3210	5840	17000	22500	9490	2520	3630
7	4790	5110	9630	11200	8570	6130	7620	15300	23500	9590	2490	2790
8	4720	5050	10000	10800	8690	4210	10100	15100	19000	9350	2470	2620
9	4770	4740	10100	3630	8610	11600	13400	15700	17800	9160	2420	2550
10	4720	4740	9550	7250	8740	12200	13000	17600	14200	8270	2400	2510
11	4690	5050	4580	8960	8820	4450	11100	20500	12700	8910	2360	2470
12	4960	4670	4300	9180	3190	3730	10200	18500	12200	8780	2330	2440
13	4760	4310	6050	7860	3260	3730	10500	17700	11300	8740	2310	2400
14	4820	4040	5940	9960	6440	3710	10500	18900	11000	8150	2280	2370
15	4700	3850	5830	4580	5040	3580	9610	17600	10700	7550	5790	2350
16	4600	7960	3700	4290	4160	3380	9780	15800	10100	3420	5870	2370
17	4550	9260	3500	6090	8850	3410	9900	15800	9270	3190	5830	2740
18	4560	9580	3580	7150	9010	3440	9410	16400	8600	7250	6110	3070
19	4500	9900	3640	7110	3360	3420	9160	15900	8040	7590	6290	2960
20	4460	8250	5270	8910	3340	3510	8900	16200	7780	7700	2390	7360
21	4430	7860	4690	7520	3470	3420	8890	15700	7700	7570	2130	8270
22	4340	9080	8100	3460	3790	3410	9420	15800	9470	7310	6470	9130
23	4150	9880	8500	3180	7090	3610	11300	22900	8910	7330	9070	6420
24	3730	10000	8650	9550	9240	4200	15700	26700	8530	6690	9150	4060
25	4270	9920	4430	9740	3540	4360	21000	27300	7340	6740	9170	3610
26	5070	10200	4410	12100	3350	4300	25600	26700	5880	7950	5130	8030
27	5150	9980	7710	12000	3270	4430	24200	22300	7020	7860	3670	8680
28	4880	9200	7740	11700	3260	5070	21800	16500	8920	7400	3890	10500
29	4750	9040	7420	2930	---	4680	21600	15600	8770	7210	5160	10800
30	4480	9010	7110	2630	---	4310	21800	14200	9850	2960	6570	11900
31	4460	---	3970	8430	---	4190	---	20000	---	2800	5310	---
TOTAL	144910	215180	215570	245910	179310	151540	351610	604200	389280	227000	138710	144790
MEAN	4675	7173	6954	7933	6404	4888	11720	19490	12980	7323	4475	4826
MAX	5180	10200	10100	12100	10900	12200	25600	29600	27200	9760	9170	11900
MIN	3730	3850	3500	2630	3190	3210	4020	14200	5880	2800	2130	2350
AC-FT	287400	426800	427600	487800	355700	300600	697400	1198000	772100	450300	275100	287200

CAL YR 1976 TOTAL 6730490 MEAN 18390 MAX 71000 MIN 3500 AC-FT 13350000
WTR YR 1977 TOTAL 3008010 MEAN 8241 MAX 29600 MIN 2130 AC-FT 5966000

13341050 CLEARWATER RIVER NEAR PECK, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.
INSTRUMENTATION.--Temperature recorder since October 1964.
COOPERATION.--Temperature records furnished by U.S. Corps of Engineers and reviewed by U.S. Geological Survey.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25°C Aug. 1, 2, 1965, July 28, 1968; minimum, 0.0°C on many daysduring winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.0°C June 25, 26, July 16, Aug. 6; minimum, 1.0°C Dec. 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)
NOV					
10...	1813	4740	36	11.0	9.0
FEB					
15...	1400	4740	22	9.0	2.5
MAR					
28...	1610	4350	29	10.0	4.5
SEP					
19...	1445	2920	38	18.0	14.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	14.0	9.5	8.5	4.5	4.0	3.0	3.0	3.5	2.5	4.0	3.0
2	15.5	14.5	9.0	8.5	5.0	4.5	4.5	3.0	3.5	2.5	4.5	3.5
3	14.5	13.5	9.5	9.0	5.0	5.0	4.5	4.5	4.0	2.5	4.5	3.5
4	14.0	13.0	10.0	9.5	5.0	4.5	4.5	4.5	4.0	3.5	4.5	3.5
5	13.5	12.5	10.0	9.5	4.5	4.5	4.5	4.0	4.0	2.0	4.5	3.5
6	13.5	12.5	10.0	9.5	4.5	4.5	4.0	4.0	3.5	2.0	4.5	4.0
7	13.5	12.0	9.5	9.0	5.0	4.5	4.5	4.0	4.0	1.5	4.5	4.5
8	13.0	12.0	9.5	9.0	5.0	4.5	4.0	4.0	4.0	2.0	5.0	4.5
9	13.0	11.5	9.5	9.0	4.5	4.5	3.5	2.5	4.0	2.0	4.5	4.5
10	13.0	12.0	9.5	9.0	4.5	4.0	4.0	2.5	4.0	2.0	4.5	4.0
11	13.0	12.0	9.5	9.0	4.5	3.5	4.0	4.0	4.0	2.0	4.5	3.5
12	13.0	12.0	9.0	8.5	3.5	3.0	4.0	3.5	3.5	2.0	4.5	3.5
13	14.0	11.5	8.5	8.0	4.5	3.5	3.5	2.5	2.5	1.5	4.5	4.0
14	12.5	11.5	8.0	7.5	4.5	3.5	3.5	3.5	3.5	1.5	4.5	3.5
15	12.0	11.0	7.5	7.0	4.5	3.5	3.5	2.5	3.0	2.0	5.0	3.5
16	12.0	11.0	8.5	7.0	4.5	3.5	3.0	2.5	3.0	2.5	5.0	3.5
17	11.5	10.5	8.0	7.0	3.5	3.0	3.5	2.5	4.0	2.0	4.5	4.0
18	11.0	10.0	8.0	7.5	3.5	3.0	3.5	3.0	4.0	2.0	4.5	4.0
19	10.5	9.5	8.0	7.5	3.5	3.5	3.0	3.0	3.5	2.0	4.5	4.0
20	10.0	9.0	7.5	7.0	4.5	3.5	3.5	2.5	3.5	2.0	5.0	4.0
21	10.0	9.0	7.5	7.0	5.0	4.0	3.0	3.0	3.0	2.5	4.5	4.0
22	10.0	9.0	7.5	7.5	5.0	4.5	3.0	1.5	3.0	2.5	6.0	4.0
23	9.5	8.5	7.5	7.5	4.5	4.5	1.5	1.5	4.0	2.0	6.0	5.0
24	9.0	8.0	7.5	7.5	4.5	4.5	4.0	1.5	4.0	2.0	6.5	5.5
25	9.5	9.0	7.5	6.5	4.5	3.0	4.0	2.0	3.5	2.5	6.5	5.0
26	9.0	9.0	6.5	6.0	3.0	3.0	4.0	3.5	3.5	2.5	6.0	5.5
27	9.5	8.5	6.0	6.0	4.5	3.0	4.0	3.5	3.0	2.5	6.0	5.0
28	9.5	8.5	6.5	6.0	4.0	3.0	4.0	3.5	3.5	3.0	5.0	4.0
29	9.5	9.0	6.5	6.5	4.0	3.0	3.5	1.5	---	---	4.5	4.0
30	9.5	9.0	6.5	4.5	4.5	3.5	2.0	1.0	---	---	5.5	3.5
31	9.5	9.0	---	---	4.5	3.0	4.0	1.5	---	---	5.5	4.0
MONTH	15.5	8.0	10.0	4.5	5.0	3.0	4.5	1.0	4.0	1.5	6.5	3.0

13341050 CLEARWATER RIVER NEAR PECK, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	4.5	9.5	8.5	11.5	10.5	17.5	15.0	18.5	16.0	15.0	13.0
2	5.5	4.5	9.0	8.0	11.5	11.0	17.5	14.5	18.0	16.0	14.5	13.0
3	6.0	4.5	8.5	7.5	12.0	10.5	19.0	15.5	18.5	17.0	15.5	13.5
4	7.5	5.0	7.5	6.5	13.5	12.0	17.5	16.5	18.0	16.0	16.5	14.5
5	8.5	6.0	7.5	6.5	15.0	13.0	16.0	13.5	18.0	15.5	17.0	15.5
6	9.5	7.0	7.0	6.0	15.0	13.0	15.5	11.5	20.0	15.5	17.0	12.5
7	9.0	7.5	8.5	7.0	15.5	14.0	14.5	11.5	19.5	17.5	16.5	12.0
8	8.0	7.5	9.0	8.5	15.5	14.5	15.5	12.0	19.5	17.0	15.5	14.0
9	7.5	6.5	10.0	8.5	14.5	13.5	16.0	12.0	19.5	17.0	15.5	13.0
10	6.5	6.0	10.0	9.5	14.0	13.5	16.0	11.5	19.5	17.0	15.0	13.0
11	6.5	6.0	10.0	9.0	14.0	13.5	15.5	12.0	19.5	17.0	15.0	13.0
12	7.0	6.0	10.0	8.5	14.0	13.5	16.5	12.0	19.5	17.0	14.5	13.0
13	7.0	6.5	11.0	9.0	14.0	13.5	16.0	11.5	19.0	17.0	14.5	12.5
14	7.0	6.0	11.0	9.5	14.5	13.5	15.5	12.5	18.5	17.0	14.0	13.0
15	6.5	6.0	9.5	8.5	15.5	14.0	16.5	13.0	17.5	14.0	14.0	13.0
16	6.5	6.0	9.0	7.5	16.0	15.0	20.0	14.0	16.0	10.5	14.0	12.5
17	6.5	5.5	7.5	7.0	17.0	15.5	18.5	17.5	15.5	10.5	14.0	12.5
18	6.5	6.0	7.5	6.5	18.0	16.5	17.5	12.5	15.5	10.5	14.0	12.5
19	7.0	6.0	8.5	7.5	19.0	17.0	16.0	13.0	15.5	10.5	15.0	13.0
20	8.0	6.5	10.0	8.0	18.0	17.0	16.5	13.5	17.5	10.5	15.0	13.5
21	8.0	7.0	10.5	10.0	18.5	17.0	17.5	13.5	16.5	15.0	14.0	12.0
22	8.5	7.5	11.5	10.0	17.5	16.0	17.5	14.0	15.0	10.5	13.0	11.5
23	9.5	8.5	11.5	9.5	17.5	16.5	18.5	14.0	11.0	10.0	12.5	11.5
24	9.5	9.0	10.0	9.5	18.0	16.5	18.5	13.5	10.5	10.0	13.0	12.0
25	9.0	8.0	9.5	9.0	20.0	16.5	17.5	13.0	11.0	10.5	---	11.5
26	8.5	7.5	10.0	9.0	20.0	16.5	17.5	14.0	14.5	11.0	---	11.5
27	8.0	6.5	9.0	8.5	18.5	16.5	18.0	14.5	16.0	14.5	---	11.5
28	8.5	6.5	9.0	8.5	18.0	15.5	18.5	14.5	15.0	13.5	---	11.5
29	9.0	7.5	9.5	8.0	18.0	14.5	17.5	13.0	14.0	11.0	---	11.5
30	9.5	8.0	10.0	9.0	17.5	14.5	19.0	13.5	13.5	11.0	---	11.0
31	---	---	10.5	9.5	---	---	19.5	16.5	14.5	13.0	---	---
MONTH	9.5	4.5	11.5	6.0	20.0	10.5	20.0	11.5	20.0	10.0	17.0	11.0
YEAR	20.0	1.0										

13342450 LAPWAI CREEK NEAR LAPWAI, ID

LOCATION.--Lat 46°25'36", long 116°48'15", in NW¼NE¼NW¼ sec.35, T.36 N., R.4 W., Nez Perce County, Hydrologic Unit 17050306, on right bank 40 ft (12 m) upstream from county bridge, 0.7 mi (1.1 km) downstream from Tom Beall Creek, 1.6 mi (2.6 km) north of Lapwai, 1.6 mi (2.6 km) south of Spalding, and at mile 1.9 (3.1 km).

DRAINAGE AREA.--235 mi² (609 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 864.64 ft or 263.5 m.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft³/s (62.3 m³/s) Dec. 1, 1975 (gage height, 8.67 ft or 2.643 m); minimum, 0.85 ft³/s (0.024 m³/s) Aug. 18, 19 (gage height, 3.00 ft or 0.914 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 4,380 ft³/s (124 m³/s) January 1965 on basis of slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 294 ft³/s (8.33 m³/s) Apr. 18 (gage height, 5.14 ft or 1.567 m), no peak above base of 400 ft³/s (11.3 m³/s); minimum, 0.85 ft³/s (0.024 m³/s) Aug. 18, 19 (gage height, 3.00 ft or 0.914 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 28-29, Dec. 4, 21-24, Dec. 30 to Jan. 10, Jan. 28-30, Feb. 1-2)

3.0	0.85	3.7	32
3.1	1.90	3.9	52
3.2	3.71	4.2	92
3.3	6.75	4.5	144
3.4	11	4.8	207
3.5	17		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	20	17	13	13	16	28	15	34	3.2	1.6	10
2	8.6	18	17	10	13	16	27	20	31	3.3	1.5	9.1
3	9.1	17	18	9.9	13	17	27	25	28	3.0	1.5	9.1
4	9.1	16	16	9.8	13	16	27	29	25	3.2	1.5	8.6
5	9.1	15	19	9.7	13	16	45	25	22	4.0	1.8	9.5
6	9.5	15	18	9.9	13	16	91	22	20	4.3	1.7	8.1
7	9.5	15	19	10	13	16	150	21	18	3.7	1.5	5.8
8	9.5	15	20	10	13	17	187	20	21	3.5	1.5	5.5
9	9.1	15	21	11	13	18	140	20	25	3.5	1.7	5.5
10	9.5	15	20	12	13	18	89	29	18	3.3	1.6	5.5
11	9.5	15	20	15	13	18	83	28	16	3.2	1.5	5.2
12	8.6	15	20	18	15	18	66	25	15	3.0	1.6	4.9
13	9.1	15	20	20	16	18	66	23	18	3.0	1.6	4.3
14	8.6	15	20	21	17	18	50	22	20	2.5	1.5	4.0
15	9.1	15	19	21	16	18	45	24	18	2.6	1.6	4.0
16	8.6	15	18	20	16	18	44	25	16	2.4	1.5	4.3
17	9.1	15	19	22	16	18	39	31	13	2.6	1.5	4.9
18	9.1	15	20	39	16	18	32	72	10	3.7	1.4	4.9
19	9.5	15	18	65	16	18	30	79	9.1	4.3	1.4	4.9
20	9.5	15	16	31	16	18	28	58	8.6	3.7	1.5	20
21	10	15	15	25	17	18	27	47	7.7	3.7	1.7	22
22	10	15	16	22	18	18	25	39	6.4	3.3	1.7	18
23	10	15	17	20	18	19	23	37	5.5	2.8	1.7	17
24	11	15	18	18	16	20	21	39	4.6	2.4	1.8	18
25	15	15	19	18	16	21	20	34	4.3	3.2	2.1	18
26	15	15	21	16	16	21	18	30	3.7	3.3	2.1	16
27	15	13	22	15	16	22	17	39	3.5	3.7	2.4	15
28	14	12	21	14	16	27	16	38	3.0	3.0	2.6	18
29	15	13	20	14	---	25	16	54	3.0	3.0	3.0	29
30	14	18	18	13	---	24	15	47	3.0	2.4	7.2	35
31	14	---	16	13	---	24	---	39	---	1.8	13	---
TOTAL	323.5	457	578	565.3	420	585	1492	1056	430.4	98.7	70.3	344.1
MEAN	10.4	15.2	18.6	18.2	15.0	18.9	49.7	34.1	14.3	3.18	2.27	11.5
MAX	15	20	22	65	18	27	187	79	34	4.3	13	35
MIN	6.8	12	15	9.7	13	16	15	15	3.0	1.8	1.4	4.0
CFSM	.04	.07	.08	.08	.06	.08	.21	.15	.06	.01	.01	.05
IN.	.05	.07	.09	.09	.07	.09	.24	.17	.07	.02	.01	.05
AC-FT	642	906	1150	1120	833	1160	2960	2090	854	196	139	683

CAL YR 1976 TOTAL 40663.0 MEAN 111 MAX 990 MIN 6.8 CFSM .47 IN 6.44 AC-FT 80660
WTR YR 1977 TOTAL 6420.3 MEAN 17.6 MAX 187 MIN 1.4 CFSM .08 IN 1.02 AC-FT 12730

13342450 LAPWAI CREEK NEAR LAPWAI, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT							
21...	1430	10	214	18.5	11.0	--	--
NOV							
18...	1245	15	218	13.0	10.5	--	--
DEC							
17...	0940	19	185	6.0	2.0	--	--
JAN							
12...	0845	17	245	.0	1.0	--	--
FEB							
17...	0810	16	247	2.5	4.0	--	--
MAR							
16...	1320	18	268	10.0	9.0	--	--
APR							
14...	1020	56	156	14.0	9.5	--	--
MAY							
11...	1410	28	220	20.0	18.0	240	18
JUN							
08...	1125	22	227	29.5	21.0	--	--
JUL							
25...	1515	3.7	289	24.0	23.5	--	--
SEP							
21...	1145	21	177	22.5	14.5	--	--

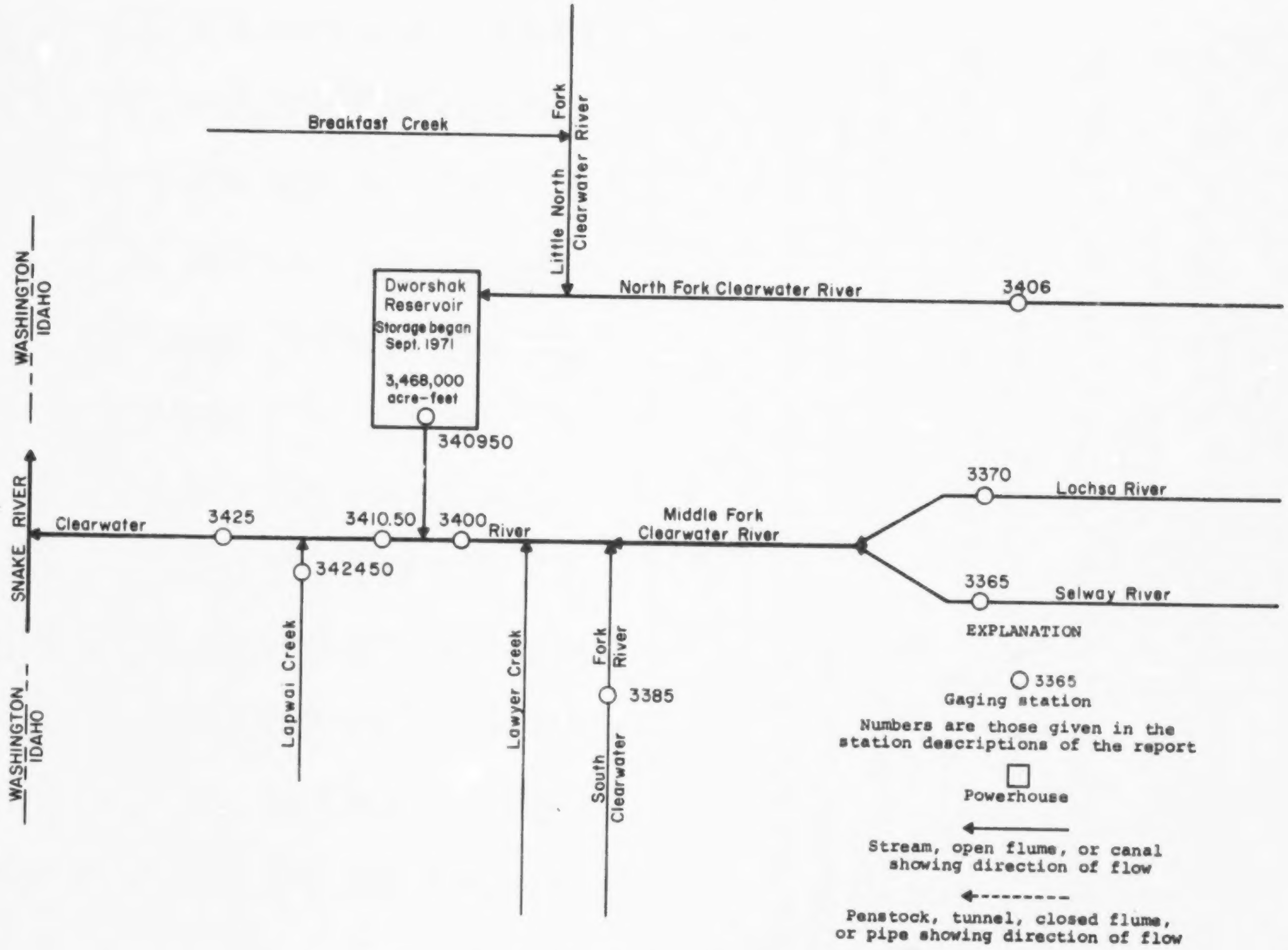

Breakfast Creek
Little North Fork Clearwater River
North Fork Clearwater River
3406
Dworshak Reservoir
Storage began Sept. 1971
3,468,000 acre-feet
340950
WASHINGTON
IDAHO
SNAKE RIVER
Clearwater
3425
3410.50
3400
River
342450
Lapwai Creek
Lawyer Creek
South Fork Clearwater River
3385
Middle Fork Clearwater River
3370
Lochsa River
3365
Selway River
WASHINGTON
IDAHO
EXPLANATION
3365
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow

FIGURE 20.--Gaging stations in Clearwater River basin.

13342500 CLEARWATER RIVER AT SPALDING, ID

LOCATION.--Lat 46°26'55", long 116°49'35", in Indian allotment 198, NE¼SW¼ sec.22, T.36 N., R.4 W., Nez Perce County, Hydrologic Unit 17060306, Nez Perce Indian Reservation, on left bank 0.4 mi (0.6 km) downstream from Lapwai Creek, 0.6 mi (1.0 km) west of Spalding Post Office, 0.9 mi (1.4 km) upstream from U.S. Highway 95 bridge, and at mile 11.6 (18.7 km).

DRAINAGE AREA.--9,570 mi² (24,790 km²), approximately. Mean altitude, 4,360 ft (1,329 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to October 1913, October 1924 to January 1925, April 1925 to current year. Published as "near Lewiston" 1910-13, 1924-27. Records published for both sites March 1926 to September 1927.

REVISED RECORDS.--WSP 1737: 1927, 1935, 1943.

GAGE.--Water-stage recorder. Altitude of gage is 770.5 ft or 234.85 (estimated from datum of gage 3,100 ft or 945 m upstream). See WRD for Idaho 1966-68 for history of changes prior to Oct. 1, 1962.

REMARKS.--Records excellent. Diversions above station for irrigation of about 130 acres or 53 hm² (1966 determination). Regulation of the North Fork Clearwater River at Ahsahka began on Sept. 27, 1971, when diversion tunnel at Dworshak Dam was closed.

AVERAGE DISCHARGE.--55 years (1910-13, 1925-77), 15,540 ft³/s (440.1 m³/s), 11,260,000 acre-ft/yr (13,880 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 177,000 ft³/s (5,010 m³/s) May 29, 1948 (gage height, 23.76 ft or 7.242 m); maximum gage height, 27.77 ft (8.464 m) Feb. 5, 1963, from floodmark (ice jam); minimum daily discharge, 500 ft³/s (14.2 m³/s) Jan. 9, 1937, Dec. 1, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of 20.8 ft (6.34 m), site and datum in use 1924-26 (discharge, 136,000 ft³/s or 3,850 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,700 ft³/s (898 m³/s) May 2 (gage height, 9.62 ft or 2.932 m); minimum, 2,260 ft³/s (64.0 m³/s) Aug. 22 (gage height, 2.43 ft or 0.741 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.4	2,230	7.0	16,500
3.4	3,690	9.0	27,400
4.0	5,220	12.0	50,000
5.0	8,400		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6940	4380	9340	3790	9060	3370	4250	23100	23000	9590	3320	5520
2	4330	5300	9590	4530	9030	4590	4330	28200	26000	9480	3190	4230
3	4530	6520	9380	11100	8990	9690	4230	28500	23900	5980	2850	3430
4	5000	6370	9380	11200	11100	9340	4060	24200	16000	4400	3570	3140
5	5080	5920	9450	11400	8890	5000	4400	20200	17000	8150	3250	3000
6	4740	5380	9480	11400	6810	3250	5780	17300	20600	9100	3080	2920
7	4610	5060	9480	11300	5840	4350	7560	15500	22400	9520	3080	3590
8	4720	5000	9800	11400	8820	5270	9960	14900	19300	9380	2760	2730
9	4610	4770	10000	4950	8540	10000	13000	15600	17800	9130	2580	2680
10	4590	4590	9590	5870	8780	12500	13700	16900	14400	8260	2540	2640
11	4560	4850	5810	8920	9060	6710	11700	20000	12900	8920	2510	2600
12	4660	4560	4300	9270	5000	3810	10600	18800	12400	8760	2490	2580
13	4660	4230	5380	7450	3420	3740	10600	17400	11600	8680	2450	2550
14	4720	3960	5920	9960	5950	3690	10800	18400	11100	9130	2440	2510
15	4610	3670	5780	5810	5110	3570	9960	17900	10800	7490	3350	2500
16	4510	6340	4380	4280	4640	3390	9730	15900	10400	4720	5330	2490
17	4380	8920	3390	5410	7520	3320	10200	15500	9520	3170	4200	2640
18	4380	9380	3350	7350	9170	3350	9630	16400	8850	5690	7380	2960
19	4380	9800	3550	7770	5030	3370	9340	15900	8290	6840	7520	3030
20	4330	8570	4510	8990	3350	3400	9170	16200	7880	7700	3420	5780
21	4280	7770	4150	7800	3400	3370	8990	15700	7600	7560	2300	8920
22	4250	8680	8050	4590	3740	3340	9410	15600	9030	7280	3690	8990
23	4150	9660	8360	3260	5270	3400	11100	20800	9030	6520	8890	6310
24	3670	9840	8780	7730	9730	3960	14800	25600	8610	8330	8990	5580
25	3880	9760	5440	9380	5220	4300	19800	26700	7170	6740	9060	3470
26	4640	9960	4250	12200	3370	4280	24300	26100	6900	6650	6840	6780
27	5170	10000	6520	12100	3320	4250	23900	23100	6520	7940	8500	7980
28	4900	9270	7840	12100	3280	5060	21500	16600	8610	7450	8500	10400
29	4720	8920	7490	4400	---	4920	20900	15700	8820	7310	8500	10600
30	4460	8710	7170	2420	---	4460	21100	14400	9340	4380	8680	11800
31	4350	---	5000	5620	---	4200	---	18100	---	2930	5190	---
TOTAL	142810	210140	214910	243750	181440	151250	348800	595200	385970	227200	150450	144350
MEAN	4607	7005	6933	7863	6480	4879	11630	19200	12870	7329	4853	4812
MAX	6940	10000	10000	12200	11100	12500	24300	28500	26000	9590	9060	11800
MIN	3670	3670	3350	2420	3280	3250	4060	14400	6520	2930	2300	2490
AC-FT	283300	416800	426300	483500	359900	300000	691800	1181000	765600	450700	298400	286300

CAL YR 1976 TOTAL 6908020 MEAN 18870 MAX 70800 MIN 3350 AC-FT 13700000
WTR YR 1977 TOTAL 2996270 MEAN 8209 MAX 28500 MIN 2300 AC-FT 5943000

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-60, 1968 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1959 to current year.
INSTRUMENTATION.--Temperature recorder since October 1959.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28°C Aug. 13, 1963; minimum, 0.0°C on several days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C Aug. 2; minimum, 0.0°C Jan. 1, 2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT					
21...	0845	4210	78	4.5	10.0
NOV					
17...	1300	9700	95	14.5	9.5
DEC					
16...	0820	3750	138	.5	1.5
JAN					
13...	0745	4430	--	--	--
FEB					
17...	0925	4020	120	2.5	3.5
MAR					
16...	1325	3390	--	--	--
APR					
14...	1035	11200	70	10.0	7.0
APR					
19...	1330	9280	--	--	9.0
26...	0930	23900	--	--	10.0
MAY					
04...	0910	24400	--	--	9.5
11...	1455	20600	47	18.0	13.0
16...	1430	15700	--	--	9.5
JUN					
08...	0740	18000	39	11.5	14.5
JUL					
25...	1325	6620	45	28.5	19.5
SEP					
21...	1225	10400	77	14.5	15.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIFVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT									
21...	0845	4210	2	23	70	86	94	100	--
NOV									
17...	1300	9700	2	52	82	92	100	--	--
DEC									
16...	0820	3750	2	20	94	100	--	--	--
JAN									
13...	0745	4430	6	72	98	100	--	--	--
FEB									
17...	0825	4020	2	22	95	100	--	--	--
MAR									
16...	1325	3390	4	37	94	100	--	--	--
APR									
14...	1035	11200	9	272	95	100	--	--	--
19...	1330	9280	6	150	92	94	100	--	--
26...	0930	23900	29	1870	64	74	85	98	100
MAY									
04...	0910	24400	11	725	6	76	84	96	100
11...	1455	20600	--	--	--	--	--	--	--
16...	1430	15700	3	127	73	81	100	--	--
JUN									
08...	0740	18000	--	--	--	--	--	--	--
JUL									
25...	1325	6620	2	36	88	100	--	--	--
SEP									
21...	1225	10400	36	1010	99	100	--	--	--

CLEARWATER RIVER BASIN

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	13.0	11.5	10.0	5.0	4.0	3.0	.0	3.5	3.0	6.5	5.0
2	15.0	14.5	11.0	10.0	4.0	4.0	.5	.0	3.5	3.5	6.5	5.0
3	14.5	13.0	11.0	10.0	4.5	4.0	2.0	.5	4.0	3.5	5.5	5.0
4	13.5	11.5	11.0	11.0	4.5	4.5	3.0	2.0	4.0	4.0	6.5	5.0
5	13.5	12.0	11.0	11.0	4.5	4.5	3.0	3.0	4.0	3.5	8.0	4.5
6	14.0	12.0	11.5	11.0	4.5	4.0	3.0	3.0	3.5	3.5	8.0	5.5
7	14.0	11.5	11.0	10.5	4.0	4.0	3.0	3.0	3.5	3.0	6.5	6.0
8	14.0	11.5	11.0	10.5	4.0	4.0	3.0	3.0	3.5	3.5	7.0	5.5
9	13.5	11.5	11.0	11.0	4.0	4.0	3.0	.5	4.0	3.5	6.5	5.5
10	13.5	12.0	11.0	10.5	4.0	4.0	1.0	.5	4.0	3.5	5.5	5.0
11	14.0	13.0	11.0	10.5	4.0	3.5	1.5	1.5	4.5	4.0	6.5	4.5
12	13.5	12.0	11.0	10.0	3.0	1.5	2.0	1.5	6.0	4.0	6.0	5.0
13	13.5	11.5	10.0	9.0	2.0	1.5	2.0	1.5	6.0	4.5	6.0	5.0
14	13.5	11.5	9.0	8.0	2.0	1.5	3.0	2.0	4.5	2.0	7.0	4.5
15	13.0	11.0	9.0	8.0	2.0	1.5	3.5	3.0	4.5	3.0	8.0	4.5
16	13.0	11.0	9.5	9.0	3.0	1.5	3.0	2.0	5.0	3.0	6.5	5.0
17	12.0	11.0	9.5	9.0	2.0	1.0	3.0	2.0	4.5	3.0	6.0	5.0
18	11.5	10.5	9.5	9.0	1.5	1.0	3.0	3.0	5.0	4.0	5.5	4.5
19	10.5	10.0	9.0	8.5	1.0	1.0	3.0	2.0	6.5	3.5	7.0	5.5
20	10.5	9.5	8.5	8.0	1.5	1.0	3.0	2.0	5.5	3.5	6.0	5.0
21	10.5	9.5	8.0	7.0	2.0	1.5	3.0	3.0	5.0	4.0	6.5	5.0
22	11.0	10.0	7.0	7.0	3.5	2.0	3.0	3.0	5.0	4.0	8.5	5.0
23	10.5	10.0	7.0	6.5	3.5	3.5	3.0	2.0	6.0	4.0	8.5	7.0
24	10.5	10.0	7.0	7.0	3.5	3.5	2.0	1.5	4.5	3.5	9.0	6.0
25	10.5	10.0	7.0	6.5	3.5	3.0	2.0	2.0	4.5	4.0	9.0	6.0
26	11.0	10.5	6.5	6.0	3.0	3.0	3.0	2.0	5.0	3.5	8.5	6.5
27	11.0	10.0	6.0	5.0	3.5	3.0	3.0	3.0	5.0	4.5	8.0	6.5
28	10.5	10.0	5.0	5.0	3.5	2.0	3.0	3.0	6.0	5.0	7.0	5.5
29	11.5	10.0	5.5	4.5	2.0	1.5	3.0	2.0	---	---	7.0	5.5
30	11.0	10.0	5.5	4.5	2.0	2.0	2.0	1.0	---	---	8.5	5.0
31	10.5	10.0	---	---	3.0	2.0	3.0	1.0	---	---	8.0	6.5
MONTH	15.0	9.5	11.5	4.5	5.0	1.0	3.5	.0	6.5	2.0	9.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	6.5	11.0	11.0	11.5	10.5	18.5	15.0	22.0	18.5	15.5	14.0
2	8.0	6.0	11.0	10.5	12.0	11.0	19.0	15.0	20.0	17.0	15.5	15.0
3	9.5	7.0	10.5	10.0	11.5	11.5	18.0	14.5	20.5	18.0	17.0	15.0
4	10.5	7.0	10.0	9.5	14.0	11.5	18.0	16.5	20.0	18.5	18.0	16.5
5	11.0	8.5	10.0	9.5	15.5	13.5	18.0	15.0	20.0	18.5	19.5	18.0
6	11.5	8.0	10.0	9.5	15.5	14.5	18.0	14.5	19.5	17.0	20.0	17.0
7	11.5	7.0	10.5	10.0	16.0	14.5	16.0	12.0	21.0	18.5	19.5	16.0
8	10.0	8.0	12.0	11.0	16.5	14.5	16.5	12.0	21.0	19.5	18.5	15.5
9	11.0	7.0	13.5	11.5	15.5	14.5	16.5	13.0	21.0	19.0	18.0	15.5
10	9.0	7.0	13.0	12.0	15.0	14.0	17.0	12.0	21.0	19.0	18.0	15.0
11	9.0	6.5	13.0	12.0	15.5	14.0	16.5	12.0	21.0	19.5	17.0	15.5
12	10.0	6.5	11.5	11.0	16.5	14.0	16.5	13.0	21.0	19.0	18.0	15.0
13	9.5	8.5	12.0	11.0	15.5	14.0	17.0	13.0	21.0	19.0	17.0	15.0
14	9.5	7.0	11.5	11.0	15.5	14.0	16.5	12.0	21.0	19.5	16.5	15.0
15	9.0	7.0	11.0	10.0	17.0	14.5	18.0	13.5	21.0	17.0	17.0	15.5
16	9.0	8.0	10.0	9.0	18.0	15.0	17.0	14.0	17.0	14.0	16.5	15.5
17	9.5	7.0	9.0	8.5	19.0	15.5	19.5	17.0	15.0	11.5	16.5	14.5
18	9.0	7.0	8.5	8.0	19.5	16.5	19.0	14.0	15.0	11.5	16.0	15.5
19	9.0	7.0	9.5	8.5	19.5	18.0	17.0	13.5	14.5	11.5	16.0	15.5
20	10.0	8.0	10.5	9.0	19.5	18.5	18.5	14.0	14.0	11.0	16.5	15.0
21	10.0	3.5	12.0	10.0	20.0	18.0	18.5	15.0	18.0	14.0	16.5	14.0
22	11.0	9.5	12.0	10.0	19.5	18.0	19.0	14.5	20.0	15.0	14.0	13.5
23	12.0	9.5	11.5	10.0	20.0	16.0	19.5	15.0	14.0	11.0	13.5	13.0
24	11.5	10.0	10.0	9.5	20.0	16.5	18.0	15.0	13.5	11.5	14.5	13.0
25	11.0	10.0	10.0	9.0	20.5	17.0	21.0	15.0	13.5	12.0	14.0	13.5
26	10.5	10.0	9.5	9.0	20.5	17.0	18.5	14.0	14.0	13.0	14.5	13.5
27	10.0	9.5	9.5	9.0	20.5	19.0	19.5	15.0	15.5	12.0	14.0	13.5
28	10.0	9.5	10.5	9.5	19.5	16.5	18.5	15.0	15.5	15.5	13.5	13.5
29	10.0	10.0	11.0	9.0	19.5	15.5	18.0	14.5	15.5	13.5	13.5	13.0
30	10.5	10.0	11.5	9.5	19.5	15.0	16.0	13.5	14.0	13.0	13.0	12.0
31	---	---	11.5	10.0	---	---	20.5	16.0	14.5	12.0	---	---
MONTH	12.0	3.5	13.5	8.0	20.5	10.5	21.0	12.0	22.0	11.0	20.0	12.0
YEAR	22.0	.0										

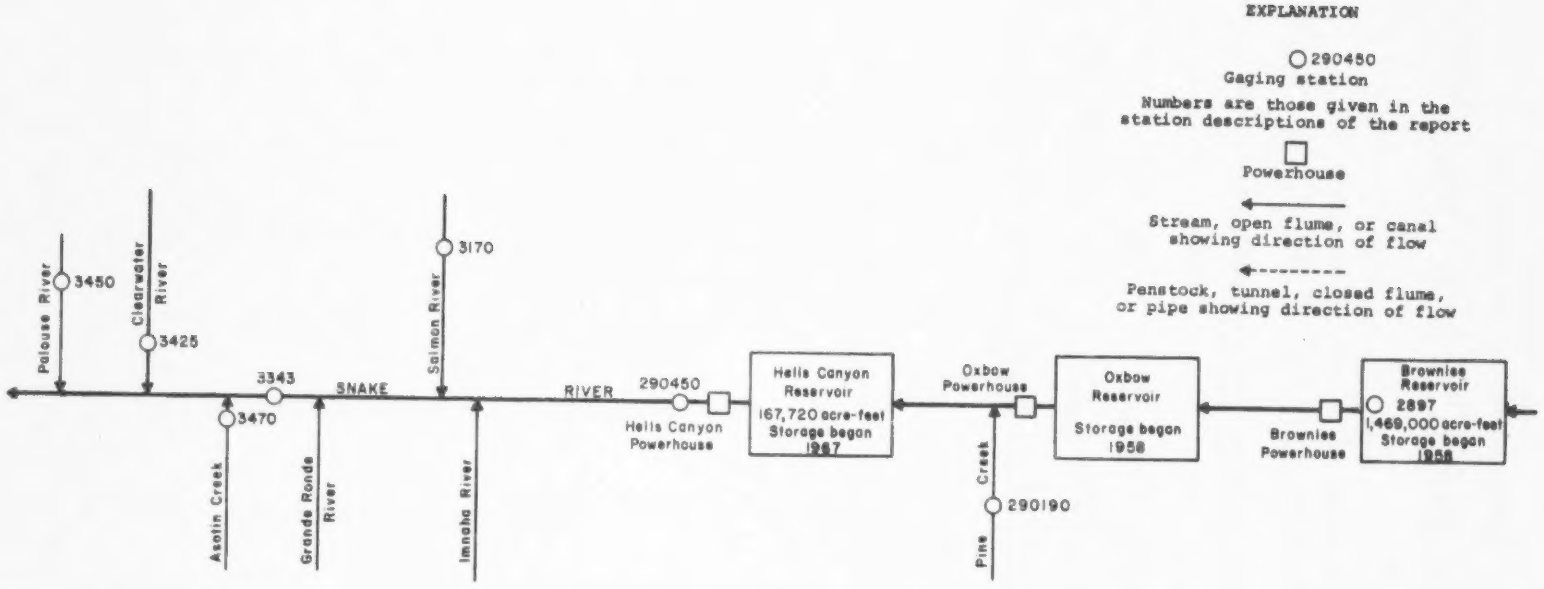

EXPLANATION
290450
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Palouse River
3450
Clearwater River
3425
Asotin Creek
3470
3343
SNAKE
Grande Ronde River
Salmon River
3170
Imnaha River
RIVER
290450
Hells Canyon Powerhouse
Hells Canyon Reservoir
167,720 acre-feet
Storage began 1967
Oxbow Powerhouse
Pine Creek
290190
Oxbow Reservoir
Storage began 1958
Brownlee Powerhouse
Brownlee Reservoir
2897
1,469,000 acre-feet
Storage began 1958

FIGURE 21.--Gaging stations in Snake River basin between Brownlee Reservoir and the mouth of the Palouse River.

13345000 PALOUSE RIVER NEAR POTLATCH, ID

LOCATION.--Lat 45°54'55", long 116°57'00", in NE¼NW¼ sec.10, T.41 N., R.5 W., Latah County, Hydrologic Unit 17060108, on left bank 20 ft (6.1 m) downstream from bridge on U.S. Highway 95, 1.0 mi (1.6 km) downstream from Deep Creek, 2.0 mi (3.22 km) west of Potlatch, and at mile 132.2 (213 km).

DRAINAGE AREA.--317 mi² (821 sq² km).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1914 to September 1919, December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,455.11 ft (748.318 m) above mean sea level (Idaho Department of Highways bench mark). October 1914 to September 1919 water-stage recorder at site 0.2 mi (0.31 km) upstream at different datum.

REMARKS.--Records fair. Low and medium flows regulated at millpond in Potlatch prior to 1974. Small amounts of water diverted for sprinkle irrigation systems above gage.

AVERAGE DISCHARGE.--15 years (1915-19, 1968-77), 289 ft³/s (8.18 m³/s), 12.37 in/yr (314 mm/yr), 209,400 acre-ft/yr (258 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Jan. 16, 1974 (gage height, 21.08 ft or 6.425 m); minimum daily, 0.07 ft³/s (0.002 m³/s) Sept. 24, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 787 ft³/s (22.3 m³/s) Jan. 18 (gage height, 7.97 ft or 2.429 m), no peak above base of 2,000 ft³/s (56.5 m³/s); minimum, 0.37 ft³/s (0.010 m³/s) Aug. 21 (gage height, 3.66 ft or 1.116 m).

Rating table (gage height, in feet, and discharge in cubic feet per second)
(Shifting-control method used Nov. 4 to Jan. 6, Sept. 13-30; stage-discharge relation by ice Nov. 15, Dec. 4-5, Dec. 31 to Jan. 10, Feb. 25-27)

3.5	0.20	4.0	3.8	5.0	78
3.6	.41	4.1	6.0	5.5	147
3.7	.76	4.2	9.4	6.0	240
3.8	1.4	4.4	20	7.0	482
3.9	2.3	4.6	36		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	13	13	24	53	78	49	63	7.0	5.1	14
2	11	24	13	10	24	56	76	50	63	6.7	4.0	9.0
3	18	26	12	9.2	25	46	76	73	63	6.4	4.2	7.7
4	25	21	12	8.6	26	44	76	75	60	6.1	3.9	7.4
5	20	19	12	8.3	26	40	114	68	58	6.7	3.0	8.0
6	16	17	13	8.1	25	43	179	58	48	7.4	2.9	8.4
7	14	17	18	8.2	27	47	251	52	43	7.7	3.5	7.7
8	13	16	30	8.3	29	112	317	50	41	7.4	3.5	8.4
9	12	16	39	8.4	34	207	335	49	38	6.4	2.7	6.1
10	12	16	38	8.5	44	185	258	47	34	6.4	1.9	5.4
11	12	16	30	9.4	72	112	197	50	32	5.4	1.9	4.5
12	12	15	20	11	75	92	167	63	29	5.1	1.7	4.0
13	13	14	23	13	105	72	158	52	27	4.9	1.1	4.0
14	12	13	19	15	85	60	181	48	26	4.2	1.5	3.6
15	12	13	16	18	84	60	149	48	23	4.0	1.5	4.0
16	11	13	20	25	58	56	133	48	22	4.2	1.5	3.6
17	11	19	17	142	52	60	135	43	20	3.8	1.7	4.2
18	11	22	15	468	51	51	119	60	18	4.7	1.4	5.8
19	11	28	13	160	50	53	103	89	17	12	.82	8.4
20	9.6	24	13	73	51	50	91	87	15	14	.52	7.4
21	10	20	13	63	58	51	84	78	17	8.7	.37	7.0
22	10	17	14	53	69	46	80	68	15	8.4	.52	10
23	9.8	17	15	45	69	54	84	61	12	6.4	.62	13
24	10	16	16	42	50	70	95	68	10	5.1	1.1	13
25	13	18	17	37	47	69	101	62	7.7	4.9	1.3	17
26	33	20	23	34	44	72	96	58	8.4	7.7	2.7	24
27	37	14	36	30	42	83	82	76	8.0	17	8.4	19
28	25	11	38	28	42	108	69	72	8.0	12	14	16
29	19	14	29	27	---	96	60	84	7.4	8.7	13	17
30	16	14	23	26	---	76	54	83	7.0	7.7	11	23
31	15	---	19	25	---	77	---	71	---	5.8	12	---
TOTAL	464.4	527	629	1435.0	1388	2301	3998	1940	840.5	222.9	113.35	290.6
MEAN	15.0	17.6	20.3	46.3	49.6	74.2	133	62.6	28.0	7.19	3.66	9.69
MAX	37	28	39	468	105	207	335	89	63	17	14	24
MIN	9.6	11	12	8.1	24	40	54	43	7.0	3.8	.37	3.6
CFSM	.05	.06	.06	.15	.16	.23	.42	.20	.09	.02	.01	.03
IN.	.05	.06	.07	.17	.16	.27	.47	.23	.10	.03	.01	.03
AC-FT	921	1050	1250	2850	2750	4560	7930	3850	1670	442	225	577

CAL YR 1976 TOTAL 117245.40 MEAN 320 MAX 2810 MIN 9.6 CFSM 1.01 IN 13.76 AC-FT 232600
WTR YR 1977 TOTAL 14149.95 MEAN 38.8 MAX 468 MIN .37 CFSM .12 IN 1.66 AC-FT 28070

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in a low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both high and low flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Bear River basin				
10091130	Swan Lake Creek near Swan Lake	Lat 42°20'31", long 111°59'05", in NE¼NW¼ sec.35, T.12 S., R.38 E., Bannock County, at county road crossing and 2.2 mi (3.5 km) north of Swan Lake.	-	1973-77	9-30-77	1.09
		Tributaries between Great Salt Lake Desert and Bear River				
10172970	Rock Creek near Holbrook	Lat 42°13'51", long 112°43'45", in NW¼ sec.9, T. 14 S., R.32 E., Oneida County, at county road crossing and 6.0 mi (9.7 km) northwest of Holbrook.	44	1962-71 1973-77	9-30-77	1.20
		Kootenai River basin				
12306800	Round Prairie Creek near Eastport	Lat 48°57'53", long 116°11'52", in SW¼SE¼SE¼ sec.21, T.65 N., R.2 E., Boundary County, Kaniksu National Forest, 0.4 mi (0.6 km) downstream from Robinson Lake, 2.5 mi (4.1 km) south of Eastport, and at mile 2.5 (4.1 km).	-	1974-77	9- 6-77	a0.59
12310800	Trail Creek at Naples	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., Boundary County, at railroad culvert, 0.4 mi (0.6 km) upstream from mouth, and at Naples.	b16	1961-71c, 1973-77c	9- 7-77	a.39
12321000	Smith Creek near Porthill	Lat 48°57'40", long 116°33'20", in SE¼NW¼NE¼ sec.26, T.65 N., R.2 W., Boundary County, Kaniksu National Forest, at forest bridge, 1.0 mi (1.6 km) south of Smith Creek ranger station, and 4.0 mi (6.4 km) southwest of Porthill.	b70	1928-61‡, 1973, 1975-77	7- 5-77	a53.2
		Pend Oreille River basin				
12392100	Trapper Creek near Clark Fork	Lat 48°15'57", long 116°07'00", in NE¼ sec.30, T.57 N., R.3 E., Bonner County, Kaniksu National Forest, at U.S. Forest Service road and 9.8 mi (15.7 km) north of Clark Fork.	1.12	1962-71c, 1974-77c	6- 3-77 9-13-77	d1.5 a0
12392155	Lightning Creek at Clark Fork	Lat 48°08'52", long 116°11'24", in NW¼SW¼NE¼ sec.3, T.55 N., R.2 E., Bonner County, 100 ft (305 m) downstream from N.P. Railroad bridge, 1,600 ft (488 m) upstream from mouth, and 0.5 mi (0.8 km) west of Clark Fork.	b100	1974-77	7-19-77	a26.4
12392450	Rapid Lightning Creek near Colburn	Lat 48°21'55", long 116°24'05", in SE¼SW¼NE¼ sec.24, T.58 N., R.1 W., Bonner County, 0.3 mi (0.5 km) upstream from mouth and 6.0 mi (9.6 km) southeast of Colburn.	-	1958-65, 1974-77	9-13-77	a9.76
12392800	Hornby Creek near Dover	Lat 48°15'10", long 116°37'50", in SW¼SW¼ sec.30, T.57 N., R.2 W., Bonner County, at U.S. Highway 2 crossing and 1.2 mi (1.9 km) west of Dover.	b2.2	1961-71c, 1975-77	9- 9-77	a.54
12392892	Blanchard Creek near Blanchard	Lat 47°59'32", long 117°04'14", in SE¼NE¼SE¼ sec. 23, T.29 N., R.45 E. (Willamette meridian), Spokane County, WA, at confluence with North Fork, 1.3 mi (2.1 km) west of Idaho-Washington State line, and 5.8 mi (9.3 km) southwest of Blanchard.	-	1973-77	9-15-77	a1.35
12392950	Indian Creek near Coolin	Lat 48°37'37", long 116°49'14", in NW¼SE¼NW¼ sec. 23, T.61 N., R.4 W., Bonner County, Kaniksu National Forest, 1.5 mi (2.4 km) upstream from mouth and 11 mi (18 km) north of Coolin.	20	1948,1973, 1975-77	9-15-77	a15.3
12393600	Binarch Creek near Coolin	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T. 59 N., R.5 W., Bonner County, Kaniksu National Forest, at State Highway 57 crossing and 3 mi (4.8 km) west of Coolin.	10.7	1962-71c, 1973, 1975-77c	9-15-77	a2.61

See footnotes on p. 463.

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin				
12411200	Shoshone Creek near Prichard	Lat 47°43'00", long 115°53'20", near line between sec.32, T.51 N., R.4 E., and sec.5, T.50 N., R.4 E., Shoshone County, Coeur d'Alene National Forest, 1.1 mi (1.8 km) upstream from mouth and 4.0 mi (6.4 km) north of Prichard.	–	1911,1934, 1948,1973, 1975–77	10-13-76 6-21-77	27.0 a58.4
12412600	North Fork Coeur d'Alene River near Enaville	Lat 47°36'39", long 116°14'22", in SW¼NW¼ sec.8, T.49 N., R.2 E., Shoshone County, Coeur d'Alene National Forest, 150 ft (46 m) upstream from mouth and 3 mi (4.8 km) north of Enaville.	–	1914,1934, 1939,1940, 1973, 1975–77	10-12-76	40.2
12413100	Boulder Creek at Mullan	Lat 47°28'10", long 115°47'44", in NE¼SE¼NE¼ sec. 34, T.48 N., R.5 E., Shoshone County, at alley crossing and 150 ft (46 m) upstream from U.S. Highway 10 crossing in Mullan.	3.13	1961–71c, 1973–77	10-13-76 9-11-77	.89 a.69
12413120	Canyon Creek at Gem	Lat 47°30'30", long 115°51'56", in SW¼NE¼ sec.18, T.48 N., R.5 E., Shoshone County, 0.1 mi (0.2 km) upstream from Bell Gulch, 0.1 mi (0.2 km) northeast of Gem, and 3.6 mi (5.8 km) upstream from mouth.	18.1	1964,1973, 1975–77	10-13-76 9-11-77	9.68 a9.51
12413170	McFarren Gulch near Osburn	Lat 47°29'20", long 116°00'56", in NW¼SW¼SE¼ sec. 24, T.48 N., R.3 E., Shoshone County, about 1.2 mi (1.9 km) south-southwest of Osburn.	1.25	1971–77	10-13-76 9-10-77	0 a.10
12413183	West Fork Big Creek near Kellogg	Lat 47°29'25", long 116°04'29", in SE¼NE¼SE¼ sec. 21, T.48 N., R.3 E., Shoshone County, about 3.5 mi (5.6 km) east of Kellogg.	5.60	1971–77	10-13-76 9-10-77	.01 a.05
12413200	Montgomery Creek near Kellogg	Lat 47°33'10", long 116°04'17", in SE¼NE¼ sec.33, T.49 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, at forest road crossing and 2.5 mi (4.0 km) northeast of Kellogg.	4.53	1962–71c, 1973–77	10-13-76 9-10-77	0 a.30
12413400	West Fork Pine Creek near Pinehurst	Lat 47°25'30", long 116°17'50", in NE¼NW¼ sec.14, T.47 N., R.1 E., Shoshone County, Bureau of Land Management land, on left bank 200 ft (61 m) south of BLM road, 1.0 mi (1.6 km) upstream from Middle Fork, 8.5 mi (13.6 km) southwest of Pinehurst, and at mile 9.5 (14.6 km).	10.8	1966–71‡, 1974–77	10-14-76	0
12413700	Latour Creek near Cataldo	Lat 47°28'10", long 116°26'15", in NE¼ sec.34, T. 48 N., R.1 W., Kootenai County, 5 ft (1.5 m) upstream from BLM road bridge, 0.4 mi (0.6 km) upstream from Baldy Creek, at mile 6.5 (10.5 km), and 7.8 mi (12.6 km) southwest of Cataldo.	24.8	1967–71‡, 1973, 1975–77	10-14-76	5.14
12413800	Fourth of July Creek near Cataldo	Lat 47°34'00", long 116°26'30", in SE¼ sec.22, T. 49 N., R.1 W., Kootenai County, at State Highway 3 crossing, 2.2 mi (3.5 km) upstream from mouth, 3 mi (4.8 km) northeast of Rose Lake, and 5.5 mi (8.8 km) northwest of Cataldo.	16.5	1959,1973 1975–77	10-12-76 9-14-77	.62 a0
12413850	Evans Creek near St. Maries	Lat 47°26'55", long 116°34'02", in SE¼SE¼ sec.3, T.47 N., R.2 W., Benewah County, 1.5 mi (2.4 km) upstream from mouth and Medicine Lake, [illegible] mi (13 km) southwest of Rose Lake, and 9 mi (14 km) north of St. Maries.	12.2	1959, 1975–77	10-12-76 9-10-77	1.73 a1.86
12413900	St. Joe River above North Fork St. Joe River, near Avery	Lat 47°14'29", long 115°45'20", near line between sec.13, T.45 N., R.5 E., and sec.18, T.45 N., R.6 E., Shoshone County, St. Joe National Forest, 2.5 mi (4.0 km) southeast of Avery, 2.6 mi (4.2 km) upstream from North Fork St. Joe River, and at mile 68.4 (109.4).	472	1911–17‡, 1948, 1974–77	10-13-76	214
12413950	North Fork St. Joe River at mouth, near Avery	Lat 47°15'08", long 115°49'47", in NW¼NW¼NW¼ sec. 14, T.45 N., R.5 E., Shoshone County, St. Joe National Forest, 300 ft (91.5 m) upstream from county road bridge, 600 ft (183 m) upstream from mouth, and 0.2 mi (0.3 km) east of Avery.	111	1974–77	10-13-76 8-11-77	51.6 a51.2
12414600	Bear Creek at Calder	Lat 47°17'00", long 116°11'30", in N½ sec.3, T.45 N., R.2 E., Shoshone County, St. Joe National Forest, at road crossing, 0.2 mi (0.3 km) west of Calder, and at mile 0.5 (0.9 km).	8.27	1959. 1974–77	9- 3-77	a1.34
12414650	Hugus Creek near Calder	Lat 47°17'00", long 116°15'40", in NW¼NW¼NW¼ sec. 6, T.45 N., R.2 E., Shoshone County, 50 ft (15 m) upstream from Avery Road culvert, 150 ft (45.7 m) upstream from mouth, and 4.0 mi (6.4 km) west of Calder.	13.1	1959, 1974–77	9- 3-77	a1.79
12414700	Trout Creek near Calder	Lat 47°17'45", long 116°15'10", in SW¼NW¼NE¼ sec. 31, T.46 N., R.2 E., Shoshone County, at road crossing, 0.2 mi (0.3 km) upstream from mouth, and 3.4 mi (5.4 km) northwest of Calder.	20.3	1959, 1974–77	9- 3-77	a5.26

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (ft³/s)
		Spokane River basin--Continued				
12414800	Bond Creek at St. Joe	Lat 47°18'30", long 116°20'30", in N½ sec.28, T. 46 N., R.1 E., Benewah County, at road crossing, 0.5 mi (0.8 km) southeast of St. Joe, and 0.8 mi (1.3 km) upstream from mouth.	2.43	1959,1973, 1975-77	9- 3-77	a2.81
12414850	Street Creek near St. Maries	Lat 47°20'20", long 116°28'40", in SW¼NW¼NW¼ sec. 16, T.46 N., R.1 W., Benewah County, 20 ft (6.0 m) downstream from county highway culvert, 0.5 mi (0.9 km) upstream from mouth, and 6 mi (9.6 km) east of St. Maries.	7.92	1959, 1974-77	9- 3-77	a.98
12415050	Thorn Creek near St. Maries	Lat 47°17'00", long 116°31'00", in SW¼NE¼NW¼ sec. 6, T.45 N., R.1 W., Benewah County, 20 ft (6.0 m) downstream from Canyon Creek, 1.5 mi (2.5 km) upstream from mouth, and 3.5 mi (5.6 km) southeast of St. Maries.	31.6	1959, 1974-77	9- 4-77	a1.06
12415100	Cherry Creek near St. Maries	Lat 47°19'00", long 116°36'47", in SE¼SW¼SE¼ sec. 20, T.46 N., R.2 W., Benewah County, 80 ft (24.4 m) upstream from State Highway 5 crossing and 2.0 mi (3.2 km) west of St. Maries.	7.07	1961-71c, 1972, 1974-77	9-29-77	a0
12415150	Benewah Creek near St. Maries	Lat 47°20'10", long 116°40'50", in NE¼SE¼NW¼ sec. 14, T.46 N., R.3 W., Benewah County, 200 ft (61 m) downstream from State Highway 5 crossing near mouth, and 6 mi (9.6 km) west of St. Maries.	52.9	1959, 1974-77	10-12-76 9-29-77	2.07 a3.84
12415200	Plummer Creek tributary at Plummer	Lat 47°20'20", long 116°53'14", in NW¼SE¼SW¼ sec. 7, T.46 N., R.4 W., Benewah County, at State Highway 5 crossing and 0.2 mi (0.3 km) north of Plummer.	2.10	1961-72c, 1974-77c	5-18-77 9- 9-77	d.1 a0
12415250	Plummer Creek near Plummer	Lat 47°21'34", long 116°46'53", in SE¼SW¼NW¼ sec.1, T.46 N., R.4 W., Benewah County, near mouth, 0.3 mi (0.5 km) upstream from bridge, and 5 mi (9.0 km) east of Plummer.	43.4	1959, 1974-77	10-12-76 9-29-77	.194 a2.03
12415300	Mica Creek near Coeur d'Alene	Lat 47°36'00", long 116°53'00", in S½ sec.8, T.49 N., R.4 W., Kootenai County, at road crossing 1.0 mi (1.6 km) upstream from mouth and 7.0 mi (11.3 km) southwest of Coeur d'Alene.	23.1	1959,1973, 1975-77	9-29-77	a3.72
12415350	Wolf Lodge Creek near Coeur d'Alene	Lat 47°38'30", long 116°37'00", in NE¼ sec.32, T.50 N., R.2 W., Kootenai County, at road crossing 0.8 mi (1.3 km) upstream from Cedar Creek and 8 mi (12.9 km) southeast of Coeur d'Alene.	39.4	1949,1973, 1975-77	10-13-76	5.98
12415400	Cougar Creek near Coeur d'Alene	Lat 47°39'20", long 116°50'30", in NE¼NW¼ sec.28, T.50 N., R.4 W., Kootenai County, at U.S. Highway 95 crossing and 3.2 mi (5.1 km) southwest of Coeur d'Alene.	14.8	1959,1973, 1975-77	9-15-77	a.16
12419100	Fish Creek near Rathdrum	Lat 47°53'08", long 116°57'06", in NW¼SE¼NW¼ sec. 3, T.52 N., R.5 W., Kootenai County, at road crossing 1.5 mi (2.4 km) upstream from Twin Lakes, and 6.0 mi (9.7 km) northwest of Rathdrum.	14.2	1959,1973, 1975-77	9-15-77	a3.24
12422950	Hangman Creek near Tensed	Lat 47°11'40", long 117°01'42", in NE¼SW¼SE¼ sec. 36, T.45 N., R.6 W., Benewah County, 0.5 mi (0.8 km) east of Idaho-Washington State line, 2.8 mi (4.5 km) southeast of Tekoa, WA , and 6.2 mi (9.9 km) west of Tensed.	-	1974-77	8-22-77	a0
12423675	Rock Creek near Rockford, WA	Lat 47°26'09", long 117°02'44", in SE¼SE¼SE¼ sec. 36, T.23 N., R.45 E., Spokane County, 0.2 mi (0.3 km) west of Idaho-Washington State line, 1.6 mi (2.5 km) upstream from Murphy Creek, and 4.4 mi (7.0 km) east of Rockford, WA.	-	1974-77	9- 9-77	a0

These footnotes are for pages 461-463.

‡ Operated as a continuous-record gaging station.
a Measurement by Idaho Department of Water Resources.
b Approximately.
c Operated as a crest-stage station.
d Estimated.

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Salt River basin				
1302720	Bear Canyon Creek near Freedom, WY	Lat 42°58'38", long 111°11'44", in SW¼ sec.16, T. 5 S., R.45 E., Boise meridian, Caribou County, 0.2 mi (0.3 km) upstream from confluence with Tincup River at State Highway 34 and 8 mi (13 km) west of Freedom.	a3.3	1961-71b, 1973, 1975-77	9- 1-77 9-20-77	.33 .30
		McCoy Creek basin				
13029500	McCoy Creek above reservoir, near Alpine, WY	Lat 43°10'50", long 111°06'55", in SW¼ sec.6, T.3 S., R.46 E., Bonneville County, at mile 1.5 (2.4 km) and 5 mi (8 km) west of Alpine.	108	1917-18‡, 1934‡, 1953-61‡, 1962-71b, 1973, 1975-77	8-17-77 9-27-77	6.91 10.6
		Indian Creek basin				
13030000	Indian Creek above reservoir, near Alpine, WY	Lat 43°15'35", long 111°04'00", near center of sec.9, T.2 S., R.46 E., Bonneville County, 0.2 mi (0.3 km) downstream from confluence of North and South Forks, 3.0 mi (4.8 km) upstream from mouth, and 5.5 mi (8.8 km) north of Alpine, WY	36.8	1918‡, 1954-61‡, 1962-71b, 1975-77	8-17-77 9- 2-77	0 0
		Elk Creek basin				
13030500	Elk Creek above reservoir, near Irwin	Lat 43°19'25", long 111°06'40", in NW¼ sec.19, T. 1 S., R.46 E., Bonneville County, at mile 2.5 (4.0 km) and 11 mi (18 km) southeast of Irwin.	59.2	1918‡, 1934‡, 1954-61‡, 1962-71b, 1975-77	9- 2-77	21.3
		Bear Creek basin				
13032000	Bear Creek above reservoir, near Irwin	Lat 43°17'00", long 111°13'17", in SE¼SE¼ sec.31, T.1 S., R.45 E., Bonneville County, Caribou National Forest, 0.5 mi (0.8 km) downstream from Elk Creek, 0.2 mi (0.3 km) upstream from maximum flow line of Palisades Reservoir, and 6.4 mi (10.3 km) south of Irwin.	77.1	1917-18‡, 1934-36‡, 1953-71‡, 1973, 1975-77	9- 2-77	15.4
		Birch Creek basin				
13037600	Birch Creek near Heise	Lat 43°36'00", long 111°43'10", in SW¼ sec.11, T. 3 N., R.40 E., Bonneville County, 3.5 mi (5.6 km) southwest of Heise.	21	1962,1973, 1975-77	9- 9-77	.84
		Lyons Creek basin				
13038410	Lyons Creek near Ririe	Lat 43°40'54", long 111°44'50", in NE¼NE¼ sec.16, T.4 N., R.40 E., Madison County, in flood-control channel and 0.7 mi (1.1 km) south of Byone.	-	1904, 1962-63, 1973-74b, 1976-77b	9- 9-77	0
		Henrys Fork basin				
13038900	Targhee Creek near Macks Inn	Lat 44°38'50", long 111°20'30", in NW¼NE¼ sec.11, T.15 N., R.43 E., Fremont County, at State Highway 87 crossing, 1.5 mi (2.4 km) west of State Highway 87 and U.S. Highway 191 junction, and 10.4 mi (16.7 km) north of Macks Inn.	20.8	1904,1924, 1929-34, 1962-71b, 1973-77	9- 7-77	5.76
13050800	Moose Creek near Victor	Lat 43°33'48", long 111°04'00", in NE¼ sec.30, T.3 N., R.46 E., Teton County, at old highway bridge, 3.7 mi (6.0 km) southeast of Victor.	21.4	1962-71b, 1975-77	9-24-77	23.4
13054400	Milk Creek near Tetonia	Lat 43°53'00", long 111°20'40", in NE¼ sec.2, T.6 N., R.43 E., Teton County, at State Highway 33 and 10.5 mi (16.9 km) northwest of Tetonia.	17.9	1962-77b	9-19-77	0
13054500	Canyon Creek near Newdale	Lat 43°48'00", long 111°26'00", in NW¼ sec.6, T.5 N., R.43 E., Madison County, above mouth of Pincock Hot Springs, 0.8 mi (1.3 km) downstream from mouth of Warm Creek, and 10.5 mi (16.9 km) southeast of Newdale.	a68	1920-25‡, 1932, 1938-39‡, 1973, 1975-77	9-19-77	9.37
13055320	Moody Creek near Newdale	Lat 43°49'50", long 111°38'10", in NW¼SW¼ sec.21, T.6 N., R.41 E., Fremont County, 0.4 mi (0.6 km) south of Moody and 4 mi (6 km) southwest of Newdale.	a88	1962-63, 1973, 1975-77	9-24-77	2.44

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Willow Creek basin				
13057600	Homer Creek near Herman	Lat 43°11'35", long 111°37'20", in NW¼ sec.2, T.3 S., R.41 E., Bingham County, at road crossing, 11 mi (18 km) west of Herman, and 12 mi (19 km) southwest of Bone.	26.4	1963-71b, 1973-77	9-27-77	0
		Snake River basin				
13061100	Snake River tributary near Osgood	Lat 43°23'07", long 112°08'47", 0.2 mi (0.3 km) west of northeast corner sec.30, T.3 N., R.37 E., Bonneville County, 2.2 mi (3.5 km) west of Osgood and 9 mi (14 km) northwest of Idaho Falls.	7.64	1961-77	9-23-77	0
13062600	Snake River tributary No. 6 near Moreland	Lat 43°31'00", long 112°28'00", in NW¼NW¼ sec.9, T.2 S., R.34 E., Bonneville County, along U.S. Highway 26 and 4 mi (6 km) northwest of Moreland.	63.5	1962,1973, 1977	9- 8-77	0
		Blackfoot River basin				
13062700	Angus Creek near Henry	Lat 42°49'43", long 111°20'15", in center of sec.8, T.7 S., R.44 E., Caribou County, at road crossing, 1.1 mi (1.8 km) northeast of Trail guard station, and 11 mi (18 km) southeast of Henry.	13.9	1962-71b, 1973-77	9-28-77	0
13065940	Wolverine Creek near Goshen	Lat 43°15'02", long 112°00'59", in NW¼NW¼ sec.16, T.2 S., R.38 E., Bingham County, at county road bridge and 5.1 mi (8.2 km) southeast of Goshen.	-	1973, 1975-77	9-23-77	6.07
13066900	Cedar Creek near Goshen	Lat 43°18'30", long 112°03'20", in NW¼ sec.30, T.1 S., R.38 E., Bingham County, 1.2 mi (1.9 km) east of Goshen.	10.5	1962,1973, 1975-77	9-23-77	0
		Portneuf River basin				
13072100	Portneuf River tributary at Bancroft	Lat 42°43'30", long 111°54'25", in SE¼ sec.16, T.8 S., R.39 E., Caribou County, at U.P. Railroad crossing and 1 mi (1.6 km) northwest of Bancroft.	a130	1962-63, 1973-74, 1976-77	8-25-77	c0
13073700	Robbers Roost Creek near McCammon	Lat 42°42'30", long 112°12'10", in SE¼ sec.23, T. 8 S., R.36 E., Bannock County, at culvert on U.S. Highway 30N, 3.5 mi (5.6 km) north of McCammon, and 6.5 mi (10.5 km) south of Inkom.	a5.7	1961-71b, 1973-77	9-28-77	.01
13075300	East Fork Mink Creek near Pocatello	Lat 42°44'20", long 112°23'30", in sec.8, T.8 S., R.35 E., Bannock County, 9 mi (14 km) southeast of Pocatello.	14.7	1912, 1963-71b, 1973-77	9-28-77	.37
13075600	North Fork Pocatello Creek near Pocatello	Lat 42°53'10", long 112°23'45", in NW¼ sec.20, T. 6 S., R.35 E., Bannock County, 300 ft (91 m) upstream from confluence with South Fork Pocatello Creek, 2 mi (3.2 km) northeast of Idaho State University, and 3.5 mi (5.6 km) east of Pocatello.	14	1961-71b, 1973-77	9-23-77	.57
		Bannock Creek basin				
13076000	Bannock Creek below Moonshine Creek, near Pauline	Lat 42°41'40", long 112°35'40", in NE¼SE¼ sec.28, T.8 S., R.33 E., Power County, on Fort Hall Indian Reservation, 0.3 mi (0.5 km) upstream from Rattlesnake Creek, 9.5 mi (15.3 km) north of Pauline, and 14 mi (23 km) southwest of Pocatello.	227	1955-58‡, 1962-63, 1965, 1973-77	9-14-77	12.8
13076100	Rattlesnake Creek near Pocatello	Lat 42°42'00", long 112°33'40", in NE¼ sec.26, T.8 S., R.33 E., Power County, 2 mi (3.2 km) upstream from mouth and 12 mi (19 km) southwest of Pocatello.	77	1955-59, 1962, 1973-77	9-14-77	6.95
		Rock Creek basin				
13077400	Rock Creek near Rockland	Lat 42°30'40", long 112°50'30", in NE¼NW¼ sec.33, T.10 S., R.31 E., Power County, 1.9 mi (3.1 km) upstream from former gage site and 4.6 mi (7.4 km) southeast of Rockland.	156	1947,1963, 1965, 1973-77	9-14-77	3.87
		Raft River basin				
13077659	Raft River near Yost, UT	Lat 41°56'50", long 113°42'00", in NE¼NE¼ sec.17, T.14 N., R.16 W., Box Elder County, at road crossing and 8 mi (13 km) west of Yost, UT	146	1965-67, 1973-77	9-14-77	2.78
1307980	Heglar Canyon tributary near Rockland	Lat 42°28'30", long 113°08'40", in SE¼SW¼ sec.11, T.11 S., R.38 E., Cassia County, 600 ft (183 m) upstream from Heglar Canyon road crossing and 16 mi (26 km) southwest of Rockland.	7.72	1958, 1961-71b, 1973-77	9-14-77	0

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Goose Creek basin				
13084400	Birch Creek above diversions, near Oakley	Lat 42°10'40", long 113°49'05", in SE¼SW¼NE¼ sec. 25, T.14 S., R.22 E., Cassia County. at county road crossing, 0.3 mi (0.5 km) downstream from North Carson Creek, and 5.3 mi (8.5 km) southeast of Oakley.	-	1973-77b	9-14-77	1.66
		Dry Creek basin				
13088500	Big Cottonwood Creek near Oakley	Lat 42°16'50", long 114°02'10", in SE¼NE¼ sec.19, T.13 S., R.21 E., Cassia County, Sawtooth National Forest, 1.0 mi (1.6 km) upstream from diversion of Twin Falls-Oakley Land and Water Co. canal and 10 mi (16 km) northeast of Oakley.	a29	1909-15‡, 1916,1973, 1975-77	9-14-77	d.4
		Rock Creek basin				
13092500	McMullen Creek near Rock Creek	Lat 42°25'05", long 114°22'18", on line between sec. 32, T.11 S., R.18 E., and sec.5, T.12 S., R.18 E., Twin Falls County, at road crossing, 3.6 mi (5.8 km) southwest of Rock Creek, and 8 mi (12.9 km) south of Kimberly.	22.7	1910-12‡, 1973, 1975-77	9-14-77	0
		Salmon Falls Creek basin				
13104800	Shoshone Creek at mouth, near San Jacinto	Lat 41°56'36", long 114°41'02", in SE¼ sec.23, T.47 N., R.64 E., Elko County, at mouth and 5 mi (8 km) north of San Jacinto.	-	1909,1914, 1938,1942, 1969-73, 1975-77	9-12-77	13.8
		Mud Lake-Lost River basins				
13108200	West Camas Creek near Kilgore	Lat 44°28'40", long 112°02'40", on SE sec. line of sec.1, T.13 N., R.37 E., Clark County, at Frazier Dam, 1.5 mi (2.4 km) downstream from Pete Creek, 9 mi (14 km) northwest of Kilgore, and 11 mi (18 km) northeast of Spencer.	-	1957-58, 1973-77	9- 8-77	4.36
13112300	Beaver Creek at Humphrey	Lat 44°28'40", long 112°13'30", in SE¼ sec.4, T.13 N., R.36 E., Clark County, at U.P. Railroad bridge, 0.3 mi (0.5 km) downstream from Humphrey, and 8.4 mi (13.5 km) north of Spencer.	-	1957-58, 1973-77	9- 8-77	2.50
13112900	Huntley Canyon at Spencer	Lat 44°21'50", long 112°11'00", in SW¼ sec.14, T.12 N., R.36 E., Clark County, at railroad crossing opposite the Spencer Mercantile Store at Spencer.	3.9	1961-71b, 1973-77	9- 8-77	.49
13116000	Medicine Lodge Creek at Ellis Ranch, near Argora	Lat 44°17'30", long 112°30'05", in SW¼SE¼ sec.7, T.11 N., R.34 E., Clark County, on left bank 4 mi (7 km) upstream from Middle Creek, 6.5 mi (10.5 km) southeast of Argora, and 16 mi (26 km) northwest of Dubois.	165	1940-69‡, 1973-77	9- 8-77	100
13117200	Main Fork near Goldburg	Lat 44°24'06", long 113°24'18", in SW¼NE¼ sec.6, T.12 N., R.26 E., Lemhi County, Challis National Forest, at road crossing, 0.5 mi (0.8 km) upstream from confluence with Timber Creek, and 12 mi (19 km) east of Goldburg.	15.6	1960-71b, 1973-77	9-26-77	12.3
13117600	Dry Creek below Dry Creek Reservoir, near Clyde	Lat 44°09'30", long 113°31'45", in NW¼ sec.31, T. 10 N., R.25 E., Custer County, at old road crossing upstream from Taylor No. 1 diversion, 1.6 mi (2.6 km) downstream from old damsite, 14.3 mi (23.0 km) west of Clyde, and 36.5 mi (58.7 km) northwest of Howe.	42.2	1932, 1935-36, 1938, 1959-62, 1973-77	9-26-77	16.9
13118400	Wet Creek below Coal Creek, near Mackay	Lat 44°02'49", long 113°27'00", in SW¼ sec.2, T.8 N., R.25 E., Butte County, Challis National Forest, at Pass Creek road crossing, 12.1 mi (19.5 km) northeast of Mackay, and 12.3 mi (19.8 km) southwest of Clyde.	-	1959-71b, 1973-77	9-26-77	4.85
13119800	North Fork Big Lost River near Chilly	Lat 43°55'35", long 114°11'00", in NW¼ sec.23, T.7 N., R.19 E. (unsurveyed), Custer County, Challis National Forest, at narrows, 0.5 mi (0.8 km) downstream from Burnt Creek, 4.9 mi (7.9 km) northwest of Wild Horse guard station, and 18.7 mi (30.1 km) southwest of Chilly.	a54.6	1957-59, 1966-68, 1973, 1975-77	10- 1-77	14.2
13120240	East Fork Big Lost River near Chilly	Lat 43°53'45", long 113°59'00", in NW¼ sec.33, T.7 N., R.21 E. (unsurveyed), Custer County, Challis National Forest, 0.2 mi (0.3 km) downstream from Banana Gulch, 5.8 mi (9.3 km) east of Wild Horse guard station, and 13.8 mi (22.2 km) south of Chilly.	-	1957-59, 1973, 1975-77	10- 1-77	46.6

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Mud Lake-Lost River basins--Continued				
13129800	Alder Creek below South Fork, near Mackay	Lat 43°49'40", long 113°36'10", in NW¼NW¼ sec.27, T.6 N., R.24 E., Custer County, Challis National Forest, 20 ft (6 m) downstream from South Fork and 6 mi (9.7 km) south of Mackay.	27.6	1966-68‡, 1973, 1975-77	10- 1-77	5.18
13131500	Pass Creek near Leslie	Lat 43°56'05", long 113°26'50", in SW¼ sec.14, T.7 N., R.25 E., on line between Butte and Custer County, Challis National Forest, at road bridge, 0.2 mi (0.3 km) north of forest boundary, 4.8 mi (7.7 km) northwest of Leslie, and 18.3 mi (29.4 km) east of Mackay.	23.6	1920-22‡, 1959, 1973, 1975-77	10- 1-77	2.64
		Big Wood River basin				
13135200	Prairie Creek near Ketchum	Lat 43°49'00", long 114°35'50", in NW¼ sec.31, T.6 N., R.16 E., Blaine County, Sawtooth National Forest, at U.S. Highway 93 crossing and 15 mi (24 km) northwest of Ketchum.	a18	1962-71b, 1973, 1975-77	9-22-77	9.94
13135800	Adams Gulch near Ketchum	Lat 43°42'20", long 114°23'50", in SW¼ sec.2, T.4 N., R.17 E., Blaine County, Sawtooth National Forest, 2.5 mi (4.0 km) northwest of Ketchum.	10.9	1962-71b, 1973, 1975-77	9-22-77	0
13137000	Warm Springs Creek at Guyer Hot Springs, near Ketchum	Lat 43°40'58", long 114°24'24", at west sec. line of NW¼SW¼NW¼ sec.14, T.4 N., R.17 E., Blaine County, Sawtooth National Forest, at road crossing, 2.2 mi (3.5 km) west of U.S. Highway 93 and State Highway 75 junction in Ketchum, and about 2.3 mi (3.7 km) upstream from mouth.	a97	1920-21‡, 1973, 1975-77	9-22-77	30.8
13141350	Soldier Creek near Fairfield	Lat 43°26'44", long 114°48'27", in NE¼SE¼SE¼ sec. 5, T.1 N., R.14 E., Camas County, at county bridge, 0.2 mi (0.3 km) downstream from Phillips Creek, and 7 mi (11.3 km) north of Fairfield.	-	1973-74, 1976-77	9-22-77	2.95
13141400	Deer Creek near Fairfield	Lat 43°22'06", long 114°43'08", in SW¼SE¼SW¼ sec. 31, T.1 N., R.15 E., Camas County, at county road crossing and 4.1 mi (6.6 km) northeast of Fairfield.	13.2	1961-71b, 1974, 1976-77	9-22-77	0
13145700	Schooler Creek near Gooding	Lat 43°11'30", long 114°39'25", in SE¼NE¼ sec.3, T.3 S., R.15 E., Gooding County, at State Highway 46 and 18 mi (29 km) north of Gooding.	2.22	1961-77b	9-22-77	0
13147300	Muldoon Creek near Garfield guard station	Lat 43°34'08", long 113°54'50", in NE¼ sec.26, T.3 N., R.21 E., Blaine County, at road crossing, 3.0 mi (4.8 km) south of Garfield guard station, and 18.5 mi (29.8 km) north of Carey.	12.2	1962-71b, 1974, 1976-77	9-23-77	.87
13149000	Fish Creek above Fish Creek Dam, near Carey	Lat 43°26'20", long 113°50'30", in sec.2, T.1 N., R.22 E., Blaine County, at Cipolletti weir, 1.2 mi (1.9 km) upstream from West Fork Fish Creek, 1.5 mi (2.4 km) upstream from Fish Creek Dam, and about 12 mi (19 km) northeast of Carey.	a32	1904, 1920-39‡, 1973-74, 1976-77	9-26-77	4.67
		Clover Creek basin				
13154000	Clover Creek near Bliss	Lat 43°01'30", long 115°00'20", in SE¼SE¼ sec.34, T.4 S., R.12 E., Gooding County, just downstream from Calf Creek and 6.5 mi (10.5 km) northwest of Bliss.	140	1938-43‡, 1957-62‡, 1963-74b, 1976-77b	9-19-77	1.12
		Little Canyon Creek basin				
13155200	Burns Gulch near Glenns Ferry	Lat 43°11'42", long 115°19'59", in NE¼NW¼ sec.1, T.3 S., R.9 E., Elmore County, at road crossing and 16 mi (25.7 km) north of Glenns Ferry.	.76	1961-71c, 1973-74, 1976-77	9-19-77	0
13155300	Little Canyon Creek at Stout crossing, near Glenns Ferry	Lat 43°09'14", long 115°18'22", in NE¼NW¼NE¼ sec. 19, T.3 S., R.10 E., Elmore County, on left bank, at county road crossing, and 13.8 mi (22.2 km) north of Glenns Ferry.	14.2	1961-65, 1966-71‡, 1973-77c	9-19-77	0

These footnotes are for pages 464-467.

‡ Operated as continuous-record gaging station.
a Approximately.
b Operated as a crest-gage station.
c Measurement by Idaho Department of Water Resources.
d Estimated.

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Bruneau River basin				
13162410	Buck Creek near Murphy Hot Springs	Lat 42°00'30", long 115°25'00", in SW¼ sec.28, T.16 S., R.9 E., Owyhee County, 400 ft (122 m) upstream from mouth and 3.2 mi (5.1 km) southwest of Murphy Hot Springs.	-	1961-62, 1973, 1975-77	9-13-77	0.41
13162500	East Fork Jarbidge River near Three Creek	Lat 42°02'00", long 115°22'20", in SE¼SE¼ sec.14, T.16 S., R.9 E., Owhyee County, on left bank 0.2 mi (0.3 km) downstream from Murphy Hot Springs, 2.0 mi (3.2 km) upstream from mouth, and 11 mi (17.6 km) southwest of Three Creek.	84.6	1928-33‡, 1953-71‡, 1974-77	9-13-77	11.6
13162540	Jarbidge River near Murphy Hot Springs	Lat 42°03'10", long 115°23'30", in SW¼ sec.10, T.16 S., R.9 E., below E.Fk. Jarbidge River and 2 mi (3 km) northwest of Murphy Hot Springs.	-	1966,1977	9-13-77	19.9
		Sinker Creek basin				
13172290	Sinker Creek above Scotch Bob Creek, near Murphy	Lat 43°03'52", long 116°38'03", in NW¼SE¼NE¼ sec. 24, T.4 S., R.3 W., Owyhee County, at Silver City road crossing, 50 ft (15 m) upstream from Scotch Bob Creek, 6 mi (10 km) northeast of Silver City, and 11.2 mi (18.0 km) southwest of Murphy.	-	1975-77	9-29-77	0
		Boise River basin				
13184200	Roaring River near Rocky Bar	Lat 43°42'20", long 115°27'50", in sec.2, T.4 N., R.8 E., Elmore County, 6 mi (10 km) upstream from mouth and 9 mi (14 km) northeast of Rocky Bar.	23.3	1958, 1963-71c, 1973-77c	9-26-77	9.79
13184800	Beaver Creek near Lowman	Lat 43°58'20", long 115°36'30", in SE¼ sec.3, T.7 N., R.7 E., Boise County, at State Highway 21 junction with road to Beaver Creek guard station and 7.5 mi (12.1 km) south of Lowman.	b9.3	1962-71c, 1975-77	9-27-77	2.29
13184955	Sheep Creek at mouth, near Twin Springs	Lat 43°41'45", long 115°39'38", in sec.7, T.4 N., R.7 E., Boise County, 200 ft (60 m) upstream from mouth and 2.5 mi (4.0 km) northeast of Twin Springs.	-	1975-77	9-26-77	13.8
13185500	Cottonwood Creek at Arrowrock Dam	Lat 43°37'56", long 115°49'25", in NW¼NE¼ sec.2, T.3 N., R.5 E., Boise County, at flow line of Arrowrock Reservoir, just downstream from unnamed tributary, 0.8 mi (1.1 km) downstream from Cottonwood ranger station, and 5.5 mi (8.8 km) northeast of Arrowrock Dam.	21.4	1912, 1914-18‡, 1929, 1939-41‡, 1955, 1976-77	9-26-77	d1.9
13187000	Fall Creek near Anderson Ranch Dam	Lat 43°26'00", long 115°23'10", in SE¼ sec.9, T.1 N., R.9 E. (unsurveyed), Elmore County, 1.5 mi (2.4 km) upstream from Castle Creek, 2 mi (3.2 km) upstream from mouth, 5 mi (8 km) southwest of Pine, and 6 mi (10 km) northeast of Anderson Ranch Dam.	55.3	1942, 1945-56‡, 1975-77	9-21-77	9.71
13193500	Grouse Creek near Arrowrock Dam	Lat 43°34'40", long 115°54'33", in NW¼SE¼SW¼ sec. 19, T.3 N., R.5 E., Elmore County, 400 ft (120 m) above high flow line of Arrowrock Reservoir and 1.4 mi (2.3 km) southeast of Arrowrock Dam.	-	1939-42‡, 1976-77	9-26-77	d1.0
13196500	Bannock Creek near Idaho City	Lat 43°48'30", long 115°46'25", in NW¼NW¼ sec.5, T.5 N., R.6 E., Boise County, Boise National Forest, 0.8 mi (1.3 km) upstream from West Fork, at mile 2.0 (3.2 km), and 3.2 mi (5.1 km) southeast of Idaho City.	5.75	1939-41‡, 1950-71‡, 1975-77	9-27-77	d.7
13199800	Grimes Creek near Idaho City	Lat 43°43'36", long 115°57'09", in SW¼SW¼NW¼ sec. 35, T.5 N., R.4 E., Boise County, 200 ft (61 m) upstream from mouth and 9 mi (14.5 km) southwest of Idaho City.	-	1973, 1975-77	9-27-77	26.3
13200500	Robie Creek near Arrowrock Dam	Lat 43°37'49", long 115°59'55", in NE¼ sec.5, T.3 N., R.4 E., Boise County, at mile 0.5 (0.8 km) and 5 mi (8 km) northwest of Arrowrock Dam.	15.8	1950-71‡, 1973, 1975-77	9-27-77	d.6
		Payette River basin				
13234300	Five Mile Creek near Lowman	Lat 44°06'20", long 115°27'30", in NE¼ sec.24, T.9 N., R.8 E., Boise County, at State Highway 21 crossing and 8.5 mi (13.7 km) east of Lowman.	b7.8	1962-71c, 1973-77c	9-27-77	6.60
13234500	Clear Creek at Lowman	Lat 44°04'55", long 115°36'40", in SW¼SE¼ sec.27, T.9 N., R.7 E., Boise County, Boise National Forest, at State Highway 21 bridge in Lowman and 550 ft (168 m) upstream from mouth.	59.6	1921-22, 1925, 1941-45‡, 1973, 1975-77	9-27-77	32.1

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Payette River basin--Continued				
13235100	Rock Creek near Lowman	Lat 44°04'50", long 115°37'30", in NE¼ sec.33, T.9 N., R.7 E., Boise County, Boise National Forest, at road bridge and 0.5 mi (0.8 km) west of Lowman.	14.6	1961-71c, 1973, 1975-77	9-27-77	5.27
13237300	Danskin Creek near Grimes Pass	Lat 44°03'36", long 115°49'06", in NW¼ sec.1, T.8 N., R.5 E., Boise County, Boise National Forest, at Banks-Lowman road crossing and 2 mi (3.2 km) northeast of Grimes Pass.	10.1	1961-71c, 1973-77	10- 5-77	1.59
13237600	Cabin Creek near Smiths Ferry	Lat 44°20'53", long 115°47'21", in NE¼SE¼NW¼ sec. 30, T.12 N., R.6 E., Valley County, Boise National Forest, 0.2 mi (0.3 km) upstream from mouth, 1.2 mi (1.9 km) downstream from Silver Creek guard station, and 13 mi (20.9 km) east of Smiths Ferry.	.42	1960-67‡, 1973-77	10- 5-77	.07
13238300	Deep Creek near McCall	Lat 45°06'00", long 116°02'18", in NW¼NE¼SW¼ sec.1, T.20 N., R.3 E., Valley County, Payette National Forest, at forest road crossing and 13 mi (21 km) north of McCall.	b.40	1961-71c, 1973, 1975-77	10-29-77	6.03
13245400	Tripod Creek at Smiths Ferry	Lat 44°17'55", long 116°05'17", in SW¼ sec.10, T. 11 N., R.3 E., Valley County, at State Highway 15 at Smiths Ferry.	8.63	1962-71c, 1973, 1976-77c	9-27-77	e.5
13247000	Porter Creek near Gardena	Lat 43°56'00", long 116°11'00", in SE¼NW¼NE¼ sec. 14, T.7 N., R.2 E., Boise County, 0.6 mi (1.0 km) upstream from mouth and 2 mi (3.2 km) south of Gardena.	21.2	1938-45‡, 1974-77	10- 5-77	1.16
13250700	Langley Gulch near New Plymouth	Lat 43°53'59", long 116°48'30", in SE¼NW¼SW¼ sec. 34, T.7 N., R.4 W., Payette County, at U.S. Highway I-80N and 5 mi (8 km) south of New Plymouth.	3.88	1961-71c, 1973, 1975-77	10- 4-77	0
		Weiser River basin				
13253500	Weiser River at Starkey	Lat 44°51'00", long 116°26'40", in NE¼SW¼ sec.34, T.18 N., R.1 W., Adams County, 200 ft (61 m) upstream from Warm Springs Creek, 8.5 mi (13.7 km) north of Council, and at mile 80.0 (128.7 km).	106	1920,1922, 1939-49‡, 1955, 1973-77	9-30-77	42.3
13260000	Pine Creek near Cambridge	Lat 44°35'23", long 116°44'12", in NE¼SE¼SE¼ sec. 31, T.15 N., R.3 W., Washington County, 300 ft (91.5 m) upstream from West Fork Pine Creek, and 3.4 mi (5.4 km) northwest of Cambridge.	54	1938-62‡, 1964-65, 1974-77	9-30-77	3.37
13261000	Little Weiser River near Indian Valley	Lat 44°29'22", long 116°23'24", in NW¼SW¼ sec.6, T.13 N., R.1 E., Adams County, at county road crossing, 2,500 ft (760 m) upstream from old gage site, 5.2 mi (8.4 km) southeast of Indian Valley, and at mile 21.5 (34.6 km).	81.9	1920-21‡, 1923-27‡, 1938-71‡, 1973, 1976-77	9-30-77	24.4
13261880	Keithly Creek near Midvale	Lat 44°31'02", long 116°49'53", in SE¼NW¼SW¼ sec. 28, T.14 N., R.4 W., Washington County, 5.5 mi (8.8 km) northwest of Midvale and 8.5 mi (13.7 km) southwest of Cambridge.	-	1973-74, 1976-77	10- 4-77	2.97
13263700	Crane Creek above Crane Creek Reservoir, near Midvale	Lat 44°24'16", long 116°31'30", in NW¼SW¼ sec.1, T.12 N., R.2 W., Washington County, 0.1 mi (0.2 km) downstream from county road bridge, 2 mi (3.2 km) northwest of Crane Creek Reservoir, and 11 mi (17.7 km) southwest of Midvale.	b120	1955, 1973-77	10- 4-77	.13
13268500	Monroe Creek above Sheep Creek, near Weiser	Lat 44°19'50", long 116°55'50", in NE¼SW¼ sec.34, T.12 N., R.5 W., Washington County, at farm road bridge, 200 ft (61.0 m) west of U.S. Highway 95, and 6 mi (9.7 km) north of Weiser.	b32	1938, 1940-44, 1945-49‡, 1955,1970, 1973-77	10- 4-77	.80
		Brownlee Creek basin				
13289600	East Brownlee Creek near Brownlee ranger station	Lat 44°44'08", long 116°50'15", in SE¼NE¼SE¼ sec. 8, T.16 N., R.4 W., Washington County, Payette National Forest, at State Highway 71 crossing and 0.2 mi (0.3 km) west of Brownlee ranger station.	7.97	1962-71c, 1974-77	9-29-77	2.48
		Wildhorse River basin				
13289800	Bear Creek near Bear	Lat 44°59'40", long 116°41'00", in NW¼SE¼SE¼ sec. 10, T.19 N., R.3 W., Adams County, Payette National Forest, at forest road crossing and 2.2 mi (3.5 km) south of Bear.	-	1913, 1962-64, 1974-77	9-30-77	10.2

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Salmon River basin				
13292200	Salmon River at head, near Obsidian	Lat 43°53'03", long 114°45'47", in NE¼NE¼NE¼ sec. 1, T.6 N., R.13 E. (unsurveyed), Blaine County, Sawtooth National Forest, at U.S. Highway 93 crossing, 0.3 mi (4.8 km) upstream from Frenchman Creek, and 14 mi (22.5 km) south of Obsidian.	17.5	1971-73, 1975-77	9-28-77	4.78
13292400	Beaver Creek near Stanley	Lat 43°55'10", long 114°48'48", in NE¼NE¼NE¼ sec. 21, T.7 N., R.14 E., Blaine County, at U.S. Highway 93 crossing, about 0.3 mi (4.8 km) north of Beaver Creek store, and 23.5 mi (37.8 km) southeast of Stanley.	15.0	1962-71c, 1972-73, 1975-77	9-28-77	.38
13292500	Salmon River near Obsidian	Lat 43°57'57", long 114°48'01", in SW¼NE¼ sec.3, T.7 N., R.14 E., Custer County, 1 mi (1.6 km) upstream from Lost Creek and 2.5 mi (4.0 km) southeast of Obsidian.	94.7	1940-53‡, 1973, 1975-77	9-28-77	28.7
13293000	Alturas Lake Creek near Obsidian	Lat 43°56'34", long 114°49'58", in SW¼SW¼ sec.9, T.7 N., R.14 E., Blaine County, Sawtooth National Forest, 1 mi (1.6 km) downstream from mouth of Perkins Lake, 1.5 mi (2.4 km) downstream from outlet of Alturas Lake, and 4 mi (6.4 km) south of Obsidian.	35.7	1940-53‡, 1973, 1975-77	9-28-77	9.68
13293800	Salmon River above Redfish Creek, near Stanley	Lat 44°09'50", long 114°53'10", in NE¼ sec.25, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at U.S. Highway 93 crossing and 4.5 mi (7.2 km) southeast of Stanley.	-	1957,1958 1973, 1975-77	9-28-77	204
13293900	Redfish Lake Creek below Redfish Lake, near Stanley	Lat 44°09'20", long 114°54'40", in NE¼SW¼NW¼ sec. 35, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at bridge 1.1 mi (1.8 km) downstream from store at Redfish Lake and 4.5 mi (7.2 km) south of Stanley.	-	1957-59, 1973, 1975-77	9-28-77	31.2
13295000	Valley Creek at Stanley	Lat 44°13'21", long 114°55'49", in SE¼NW¼SW¼ sec. 3, T.10 N., R.13 E., Custer County, at mile 0.2 (0.3 km), 0.5 mi (0.8 km) northeast of Stanley, and 0.8 mi (1.3 km) southwest of Lower Stanley.	147	1910‡, 1911-13‡, 1921-73‡, 1975-77	9-28-77	82.0
13295500	Salmon River below Valley Creek, near Stanley	Lat 44°14'00", long 114°35'01", in SE¼SE¼SE¼ sec. 34, T.11 N., R.13 E., Custer County, Challis National Forest, 0.8 mi (1.2 km) downstream from Valley Creek, and 1.2 mi (2.0 km) northeast of Upper Stanley.	501	1925-61‡, 1973, 1975-77	9-28-77	327
13296000	Yankee Fork Salmon River near Clayton	Lat 44°17'15", long 114°43'11", in NE¼SW¼ sec.17, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, at Sunbeam-Custer bridge, 1.8 mi (2.8 km) north of Sunbeam, 1.9 mi (3.1 km) upstream from mouth, and 12 mi (19.3 km) northeast of Stanley.	195	1921-49‡, 1971-73, 1975-77	9-27-77	50.4
13296500	Salmon River below Yankee Fork, near Clayton	Lat 44°16'06", long 114°43'55", in sec.20, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, 700 ft (213 m) downstream from Yankee Fork, 18 mi (29.0 km) upstream from Clayton, and at mile 366.9 (590.3 km).	802	1922-72‡, 1973-77c	9-27-77	450
13297000	Warm Springs Creek at Robinson Bar, near Clayton	Lat 44°14'50", long 114°40'11", in SW¼ sec.27, T. 11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, 160 ft (25.7 m) upstream from Robinson Bar bridge, 0.6 mi (100 km) upstream from mouth, and 13.7 mi (22.0 km) west of Clayton.	79	1921-23‡, 1971-73, 1975-77	9-27-77	39.0
13297100	Peach Creek near Clayton	Lat 44°15'50", long 114°28'50", in SE¼SW¼ sec.24, T.11 N., R.15 E., Custer County, Challis National Forest, 12.5 mi (20.1 km) west of Clayton.	7.92	1962-71c, 1972-73, 1975-77	9-27-77	2.02
13297300	Holman Creek near Clayton	Lat 44°14'52", long 114°21'43", in SE¼SW¼SW¼ sec. 25, T.11 N., R.16 E., Custer County, Challis National Forest, in Holman Creek Campground and 6.5 mi (10.5 km) west of Clayton.	6.10	1962-71c, 1972-73, 1975-77	9-27-77	.32
13297500	Big Boulder Creek near Clayton	Lat 44°05'58", long 114°26'24", in SW¼NW¼NE¼ sec. 15, T.9 N., R.17 E., Custer County, at bridge crossing, 0.4 mi (0.6 km) upstream from mouth, and 10 mi (16.1 km) southwest of Clayton.	24.7	1926-30‡, 1971-73, 1976-77	9-27-77	10.2
13298300	Malm Gulch near Clayton	Lat 44°21'18", long 114°15'45", in NE¼NE¼SW¼ sec. 19, T.12 N., R.19 E., Custer County, at U.S. Highway 95 and 9.5 mi (15.3 km) northeast of Clayton.	.38	1962-71c, 1972-73, 1976-77	9-27-77	0
13298400	Bayhorse Creek near Challis	Lat 44°22'53", long 114°15'52", in SE¼SW¼NE¼ sec.7, T.12 N., R.19 E., Custer County, 0.5 mi (0.8 km) upstream from mouth and 9 mi (14.5 km) south of Challis.	-	1973, 1975-77	9-28-77	3.54

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin--Continued				
13298500	Salmon River near Challis	Lat 44°22'43", long 114°15'18", in SE¼SE¼ sec.7, T.12 N., R.19 E., Custer County, 350 ft (76 m) downstream from Bayhorse Creek, 9 mi (14.5 km) south of Challis, and at mile 334.8 (538.7 km).	b1,800	1928-72‡, 1973-77c	9-28-77	616
13301500	Big Creek near Patterson	Lat 44°26'38", long 113°36'25", in SE¼SE¼NE¼ sec. 21, T.13 N., R.24 E., Lemhi County, at private road bridge above diversions, 0.3 mi (4.8 km) upstream from old staff gage site, 0.4 mi (6.4 km) downstream from confluence of North and South Forks, and 7 mi (11.3 km) southeast of Patterson.	54.8	1910-13‡, 1938, 1971-73, 1975-77	9-28-77	26.6
13301700	Morse Creek above diversions, near May	Lat 44°36'55", long 113°48'25", in SW¼ sec.24, T.15 N., R.22 E., Custer County, 0.6 mi (1.0 km) upstream from mouth of canyon and 5.2 mi (8.4 km) east of May.	18.0	1962-71c, 1973-77c	9-28-77	7.45
13302180	Lake Creek above Williams Lake, near Salmon	Lat 45°01'00", long 113°59'38", in NW¼SW¼ sec.33, T.20 N., R.21 E., Lemhi County, Salmon National Forest, 0.2 mi (0.4 km) upstream from Williams Lake, 3.2 mi (5.1 km) upstream from mouth, and 12 mi (19.3 km) southwest of Salmon.	-	1973, 1975-77	9-30-77	4.13
13303000	Texas Creek near Leadore	Lat 44°35'10", long 113°19'45", in NW¼SW¼ sec.35, T.15 N., R.26 E., Lemhi County, 50 ft (15 m) downstream from Nez Perce Creek, 0.5 mi (0.8 km) upstream from county road bridge, and 6.5 mi (10.5 km) south of Leadore.	71.4	1938-39‡, 1955-63‡, 1965,1973, 1975-77	9-29-77	21.2
13304875	Hayden Creek below Bear Valley Creek, near Lemhi	Lat 44°46'43", long 113°42'21", in SE¼NW¼NE¼ sec. 27, T.17 N., R.23 E., Lemhi County, Salmon National Forest, 0.2 mi (0.3 km) upstream from forest boundary, 0.4 mi (0.6 km) downstream from Bear Valley Creek, and 6.7 mi (10.8 km) southwest of Lemhi.	-	1973, 1975-77	9-29-77	54.6
13305700	Dahlonega Creek at Gibbonsville	Lat 45°32'50", long 113°55'40", in NW¼ sec.36, T. 26 N., R.21 E., Lemhi County, Salmon National Forest, at U.S. Highway 93 and 0.2 mi (0.3 km) southwest of Gibbonsville.	b32	1962-71c, 1973, 1975-77	9-29-77	15.3
13305800	Hughes Creek near North Fork	Lat 45°31'12", long 114°01'59", in SW¼NE¼SW¼ sec. 6, T.25 N., R.21 E., Lemhi County, just upstream from West Fork Hughes and Allen Creeks and 8.0 mi (13 km) northwest of North Fork.	15.7	1962-77c	9-29-77	8.95
13306000	North Fork Salmon River at North Fork	Lat 45°24'26", long 113°59'37", in NW¼SW¼SW¼ sec. 16, T.24 N., R.21 E., Lemhi County, Salmon National Forest, at U.S. Highway 93, 0.1 mi (0.2 km) upstream from mouth, and at North Fork.	214	1928, 1929-39‡, 1973, 1975-77	9-29-77	52.5
13306320	Panther Creek at Copper Creek ranger station, near Cobalt	Lat 45°04'07", long 114°16'11", in NE¼NE¼NW¼ sec. 18, T.20 N., R.19 E. (unsurveyed), Lemhi County, Salmon National Forest, at Copper Creek ranger station, 60 ft (18.3 m) downstream from road bridge, 600 ft (183 m) upstream from Copper Creek, about 0.8 mi (1.2 km) upstream from Blackbird Creek, about 2.5 mi (4.0 km) southwest of Blackbird Townsite, and 20 mi (32.2 km) southwest of Salmon.	-	1971,1973, 1975-77	9-30-77	36.2
13306330	Blackbird Creek below Mill, near Blackbird Townsite	Lat 45°06'59", long 114°20'30", in NE¼SE¼SE¼ sec.28, T.21 N., R.18 E. (unsurveyed), Lemhi County, Salmon National Forest, below Meadow Creek, 5.6 mi (9.0 km) northwest of Blackbird Townsite, and about 22 mi (35.4 km) west of Salmon.	-	1971,1973, 1975-77	9-30-77	.70
13306440	Panther Creek below Big Deer Creek, near Blackbird Townsite	Lat 45°10'38", long 114°18'53", in SW¼NE¼SW¼ sec.2, T.21 N., R.18 E. (unsurveyed), Lemhi County, Salmon National Forest, just below Big Deer Creek, 7.0 mi (11.3 km) northwest of Blackbird Townsite, and 20.2 mi (32.5 km) west of Salmon.	-	1971,1973, 1975-77	9-30-77	79.3
13307050	Owl Creek near Shoup	Lat 45°19'07", long 114°26'52", in SE¼NW¼ sec.14, T.23 N., R.17 E. (unsurveyed), Lemhi County, Salmon National Forest, at forest road and 9.3 mi (15.0 km) southwest of Shoup.	-	1973, 1975-77	9-13-77	9.71
13308500	Middle Fork Salmon River near Cape Horn	Lat 44°24'30", long 115°10'20", in NW¼ sec.3, T. 12 N., R.11 E., Custer County, Challis National Forest, 0.2 mi (0.32 km) downstream from Little Beaver Creek, 0.5 mi (0.8 km) downstream from confluence of Marsh and Beaver Creeks, 2 mi (3.2 km) northwest of Cape Horn, and at mile 110.3 (117.5 km).	138	1928-72‡, 1973, 1975-77	9-28-77	75.7
13309000	Bear Valley Creek near Cape Horn	Lat 44°25'44", long 115°17'22", in sec.29, T.13 N., R.10 E., Valley County, Boise National Forest, 250 ft (76.2 m) downstream from Fir Creek, 3 mi (4.8 km) upstream from mouth, and 7 mi (11.3 km) northwest of Cape Horn.	b180	1921-61‡, 1973, 1975-77	9-28-77	102

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin--Continued				
13310500	South Fork Salmon River near Knox	Lat 44°39'15", long 115°42'05", in NW¼ sec.11, T.15 N., R.6 E., Valley County, Boise National Forest, 800 ft (244 m) downstream from Curtis Creek, 1 mi (1.6 km) upstream from Warm Lake Creek, 1.5 mi (2.4 km) southwest of Knox, and 21 mi (33.8 km) northeast of Cascade.	b92	1928-61‡, 1973-77	9-27-77	39.5
13311500	East Fork of South Fork Salmon River near Stibnite	Lat 44°56'11", long 115°20'10", in NW¼SE¼SE¼ sec. 34, T.19 N., R.9 E., Valley County, on boundary between Boise and Payette National Forests, 75 ft (22.9 m) downstream from Sugar Creek, 3 mi (4.8 km) north of Stibnite, and 25.6 mi (41.2 km) upstream from mouth.	42.5	1928-41‡, 1973, 1975-77	9-28-77	24.2
13312500	Johnson Creek near Landmark ranger station	Lat 44°40'56", long 115°32'24", in SW¼NW¼ sec.31, T.16 N., R.8 E., Valley County, Boise National Forest, at Buck Mountain Campground, 0.3 mi (4.8 km) upstream from Lunch Creek, 1.0 mi (1.6 km) downstream from Bobcat Creek, 1.5 mi (2.4 km) north of Landmark ranger station, and 20 mi (32.2 km) south of Yellow Pine.	54.7	1942-49‡, 1973-77	9-27-77	20.7
13313500	Secesh River near Burgdorf	Lat 45°13'59", long 115°48'36", in SE¼SE¼NW¼ sec. 23, T.22 N., R.5 E., Idaho County, Payette National Forest, at Warren Wagon Road, 0.9 mi (1.4 km) upstream from Long Gulch, and 5.8 mi (9.3 km) southeast of Burgdorf.	104	1929, 1943-52‡, 1973, 1975-77	9-29-77	156
13314000	South Fork Salmon River near Warren	Lat 45°10'30", long 115°34'45", in SE¼SE¼NE¼ sec. 10, T.21 N., R.7 E., Valley County, Payette National Forest, at forest road bridge at South Fork guard station, 1.3 mi (2.1 km) upstream from Pony Creek, 1.5 mi (2.4 km) downstream from old gage site, 7.8 mi (12.6 km) southeast of Warren, and at mile 19.8 (31.9 km).	b1,160	1931-43‡, 1948, 1973-77	9-28-77	805
13314500	Warren Creek near Warren	Lat 45°16'35", long 115°41'46", in SE¼SE¼NE¼ sec. 3, T.22 N., R.6 E., Idaho County, Payette National Forest, 500 ft (152 m) downstream from Warren Wagon Road bridge, 0.1 mi (0.2 km) downstream from Steamboat Creek, and 1.3 mi (20.9 km) northwest of Warren.	b37	1943-50‡, 1973-77	9-29-77	23.7
13315500	Mud Creek near Tamarack	Lat 44°59'48", long 116°20'54", in NW¼SW¼ sec.9, T.19 N., R.1 E., Adams County, 0.5 mi (0.8 km) upstream from Little Mud Creek and 3.2 mi (5.1 km) northeast of Tamarack.	15.1	1937-38‡, 1939-43‡, 1945-59‡, 1961-71c, 1973-77	9-29-77	7.8
13316000	Boulder Creek near Tamarack	Lat 45°05'04", long 116°26'54", in NE¼NE¼SW¼ sec. 10, T.20 N., R.1 W., Adams County, Payette National Forest, 125 ft (38.1 km) upstream from Yantis ditch and 8.0 mi (12.9 km) northwest of Tamarack.	b6.5	1937, 1938-45‡, 1973-77	10- 5-77	1.18
13316300	Indian Creek near Pollock	Lat 45°16'50", long 116°21'12", in SE¼NE¼NE¼ sec. 5, T.22 N., R.1 E., Idaho County, Nez Perce National Forest, at forest road crossing and 2.5 mi (4.0 km) south of Pollock.	2.66	1961-71c, 1973-77	10- 6-77	.50
13316390	Rapid River above fish hatchery, near Riggins	Lat 45°21'05", long 116°23'52", in SE¼NW¼NE¼ sec. 12, T.23 N., R.1 W., Idaho County, Nez Perce National Forest, 500 ft (168 m) above diversion for Rapid River Fish Hatchery, 0.5 mi (0.8 km) downstream from Thorn Gulch, 0.5 mi (0.8 km) upstream from Shingle Creek, 2.8 mi (4.5 km) upstream from mouth, and 6.0 mi (9.7 km) southwest of Riggins.	-	1973-77	10- 6-77	66.7
13316600	Slate Creek at mouth, at Slate Creek	Lat 45°38'25", long 116°16'56", in NE¼NW¼NW¼ sec. 36, T.27 N., R.1 E., Idaho County, 200 ft (61 m) upstream from U.S. Highway 95 bridge, 300 ft (91 m) upstream from mouth, 0.2 mi (0.3 km) northwest of Slate Creek, and 8.7 mi (14.0 km) south of White Bird.	127	1948, 1973-77	10- 6-77	57.3
13317045	White Bird Creek near White Bird	Lat 45°47'23", long 116°15'17", in NE¼SE¼SW¼ sec. 6, T.28 N., R.2 E., Idaho County, at private road crossing, 0.2 mi (0.3 km) upstream from Magpie Gulch, and 3.0 mi (4.8 km) northeast of White Bird.	-	1973-77	10- 6-77	21.6
13317200	Johns Creek near Grangeville	Lat 45°56'16", long 116°12'03", in SW¼NW¼SW¼ sec. 15, T.30 N., R.2 E., Clearwater County, at farm road on section line, 0.8 mi (1.2 km) north of southwest corner sec.15, and 4.0 mi (6.0 km) west of Grangeville.	6.67	1961-72c, 1974-77	7-19-77	a.21

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin				
13336600	Swiftwater Creek near Lowell	Lat 46°06'55", long 115°34'21", in SE¼SE¼NE¼ sec. 16, T.32 N., R.7 E., Idaho County, Nez Perce National Forest, at mouth, at forest road, and 2.5 mi (4.0 km) southeast of Lowell.	6.19	1961-71c, 1973-77	6- 9-77	a5.7
13336650	East Fork Papoose Creek near Powell ranger station	Lat 46°32'07", long 114°45'52", in SE¼SW¼NE¼ sec. 24, T.36 N., R.13 E., Idaho County, Clearwater National Forest, at forest road and 3 mi (4.8 km) northwest of Powell ranger station.	b4.51	1961-71c, 1973-77	7-25-77	a3.24
13368000	Warm Springs Creek near Powell ranger station	Lat 46°28'20", long 114°53'10", in sec.7, T.36 N., R.13 E. (unsurveyed), Idaho County, Clearwater National Forest, at mouth and 9 mi (14.5 km) west of Powell ranger station.	b74.7	1911,1924, 1956-59‡, 1973-77	7-25-77	a59.3
13336850	Weir Creek near Powell ranger station	Lat 46°27'31", long 115°02'01", near W¼ cor., sec.13, T.36 N., R.11 E. (unsurveyed), Idaho County, Clearwater National Forest, 200 ft (61 m) upstream from U.S. Highway 12 and 16 mi (26 km) west of Powell ranger station.	b12.2	1961-71c, 1973-77	7-25-77	a9.03
13337100	Clear Creek near Kooskia	Lat 46°07'56", long 115°57'55", in SE¼NW¼NW¼ sec. 10, T.32 N., R.4 E., Idaho County, at county road, 0.1 mi (0.2 km) upstream from mouth, 1.5 mi (2.4 km) east of Kooskia.	b102	1924, 1962‡, 1968‡, 1971-72‡, 1973-77	8-24-77	f18.9
13337200	Red Horse Creek near Elk City	Lat 45°47'39", long 115°23'59", in SW¼SW¼NW¼ sec. 6, T.28 N., R.9 E. (unsurveyed), Idaho County, Nez Perce National Forest, 75 ft (23 m) upstream from Elk City-Dixie road and 3.0 mi (4.8 km) southeast of Elk City.	9.13	1961-71b, 1973, 1975-77	7-20-77	a1.69
13337700	Peasley Creek near Golden	Lat 45°49'05", long 115°49'01", in SE¼ sec.27, T.29 N., R.5 E. (unsurveyed), Idaho County, Nez Perce National Forest, at State Highway 14 and 6.6 mi (10.6 km) west of Golden.	14.2	1962-71c, 1973, 1975-77c	6-30-77	a8.3
13338200	Sally Ann Creek near Stites	Lat 46°00'40", long 115°57'40", in SE¼ sec.21, T.31 N., R.4 E., Idaho County, at State Highway 13 and 5.8 mi (9.3 km) south of Stites.	13.9	1961-71c, 1973, 1975-77	7-21-77	a.66
13339700	Canal Gulch Creek at Pierce ranger station	Lat 46°29'50", long 115°47'30", in SE¼SE¼NW¼ sec. 2, T.36 N., R.5 E., Clearwater County, at Pierce ranger station and 0.5 mi (0.9 km) north of Pierce.	5.9	1961-71c, 1973-77	8-13-77	a1.0
13339900	Deer Creek near Orofino	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T.36 N., R.2 E., Clearwater County, at dirt road and 3.0 mi (4.8 km) east of Orofino.	b6.8	1962-71c, 1973-77c	8-13-77	0
13341100	Cold Springs Creek near Craigmont	Lat 46°14'10", long 116°31'06", in NE¼ sec.1, T.33 N., R.2 W., Lewis County, at U.S. Highway 95 and 2.7 mi (4.3 km) west of Craigmont.	8.07	1961-71c, 1973, 1975-77c	7-19-77	ad.03
13341400	East Fork Potlatch River near Bovill	Lat 46°50'08", long 116°23'26", in SW¼SW¼ sec.6, T.40 N., R.1 E., Latah County, 60 ft (18 m) upstream from highway bridge and 1.5 mi (2.4 km) south of Bovill.	41.6	1959-71‡, 1973, 1975-77	9-17-77	a12.0
13341500	Potlatch River at Kendrick	Lat 46°36'50", long 116°39'40", in SE¼NE¼NW¼ sec. 25, T.38 N., R.3 W., Latah County, at Mill Street bridge in Kendrick.	425	1946-60‡, 1961-71, 1974-77	9- 1-77	a31.4
13342000	Mission Creek near Winchester	Lat 46°11'20", long 116°38'49", in SW¼NE¼ sec.24, T.33 N., R.3 W., Lewis County, at county road crossing and 4.0 mi (6.4 km) southwest of Winchester.	b16	1940-45‡, 1938,1956, 1973, 1975-77	7-19-77	a.48
13342150	Lapwai Creek above Sweetwater Creek, near Sweetwater	Lat 46°21'28", long 116°46'01", in NE¼SW¼SW¼ sec. 19, T.35 N., R.3 W., Nez Perce County, at bridge, 400 ft (122 m) downstream from Thiessen Gulch, 1.9 mi (3.1 km) upstream from Sweetwater Creek, and 1.7 mi (2.7 km) southeast of Sweetwater.	-	1973, 1975-77	6- 7-77	12.8

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Palouse River basin				
13344620	Palouse River near Harvard	Lat 46°57'00", long 116°40'20", in NE¼NE¼NE¼ sec. 35, T.42 N., R.3 W., Latah County, 30 ft (10 m) upstream from U.S. Highway Alt. 95 bridge and 3.5 mi (5.6 km) northeast of Harvard.	-	1963-64, 1974-77	9- 8-77	a4.91
13344800	Deep Creek near Potlatch	Lat 46°57'38", long 116°56'04", in SE¼SW¼SW¼ sec. 23, T.42 N., R.5 W., Latah County, on farm road and 3.3 mi (5.3 km) northwest of Potlatch.	36.6	1961-71, 1972-77c	5-10-77 8- 9-77 9- 9-77	d1.0 0 a0
13346450	South Fork Palouse River near Moscow	Lat 46°42'41", long 116°58'45", in NE¼SE¼NE¼ sec. 20, T.39 N., R.5 W., Latah County, 0.6 mi (1.0 km) south of Mountain View Ave.-State Highway 8 junction and 1.0 mi (1.6 km) southeast of Moscow.	25.1	1972-77	9- 4-77	0
13346700	Paradise Creek near Moscow	Lat 46°43'45", long 116°58'32", in SE¼SW¼NW¼ sec.9, T.39 N., R.5 W., Latah County, on D Street 1.2 mi (1.9 km) east of U.S. Highway 95 in Moscow.	-	1973-77	9- 4-77	a0

These footnotes are for pages 468-474.

‡ Operated as a continuous-record gaging station.
a Measurement by Idaho Department of Water Resources.
b Approximately.
c Operated as a crest-stage station.
d Estimated.
e Discharge determined from rating of current crest-stage station.
f Measurement by U.S. Army Corps of Engineers.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. Measurements made to rate the crest-stage stations are given in the list of miscellaneous measurements. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Bear River basin					
10090800	Battle Creek tributary near Treasureton	Lat 42°16'40", long 111°48'50", in SW¼ sec.20, T. 13 S., R.40 E., Franklin County, at mile 1.5 (2.4 km), on side road from State Highway 34, and 2 mi (3.2 km) northeast of Treasureton.	a4.5	1961-71, 1973-77	3-12-77b	9.93	4.5
10091130	Swan Lake Creek near Swan Lake	Lat 42°20'31", long 111°59'05", in NE¼NW¼ sec.35, T.12 S., R.38 E., Bannock County, at county road crossing and 2.2 mi (3.5 km) north of Swan Lake.	-	1973-77	5- 6-77b	4.65	14
10172970	Rock Creek near Holbrook	Lat 42°14', long 112°44', in NW¼ sec.9, T.14 S., R.32 E., Oneida County, at county road crossing and 6.0 mi (9.7 km) northwest of Holbrook.	44	1962-71, 1973-77	6-20-77	31.20	1,580
		Kootenai River basin					
12310800	Trail Creek at Naples	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., Boundary County, at culvert crossing of Spokane International Railroad and 0.2 mi (0.3 km) north of Naples School.	16.1	1961-71, 1973-77	4- 9-77	7.87	135
		Pend Oreille River basin					
12392100	Trapper Creek near Clark Fork	Lat 48°15'57", long 116°07'00", in NE¼ sec.30, T. 57 N., R.3 E., Bonner County, at forest road and 9.8 mi (15.8 km) north of Clark Fork.	1.12	1962-77	4-26-77	14.05	30
12393600	Binarch Creek near Coolin	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T. 59 N., R.5 W., Bonner County, at State Highway 57 and 3 mi (4.8 km) west of Coolin.	10.7	1962-71, 1973-77	4-26-77	10.98	20
		Spokane River basin					
12413100	Boulder Creek at Mullan	Lat 47°28'08", long 115°47'40", in NE¼SE¼NE¼ sec. 34, T.48 N., R.5 E., Shoshone County, at U.S. Highway I-90 crossing in Mullan.	3.13	1961-71, 1973-77	5-11-77b	-	c50
12413700	Latour Creek near Cataldo	Lat 47°28'10", long 116°26'15", in NE¼ sec.34, T. 48 N., R.1 W., Kootenai County, at BLM road bridge, 0.4 mi (0.6 km) upstream from Baldy Creek, at mile 6.5 (10.5 km), and 7.8 mi (12.6 km) southwest of Cataldo.	24.8	1961-71‡, 1973-77	4-26-77	-	220
12414400	East Fork Big Creek near Calder	Lat 47°18'07", long 116°07'05", in SW¼NE¼SE¼ sec. 30, T.48 N., R.3 E., Shoshone County, at road bridge and 3.7 mi (6.0 km) northeast of Calder.	15.4	1973-77	4- 9-77	9.18	145
12415200	Plummer Creek tributary at Plummer	Lat 47°20'20", long 116°53'14", in SW¼ sec.7, T. 46 N., R.4 S., Benewah County, at U.S. Highway 95 and 0.2 mi (0.3 km) north of Plummer.	2.10	1961-77	1-18-77	9.03	35
		Lyons Creek basin					
13038410	Lyons Creek near Ririe	Lat 43°40'54", long 111°44'50", in NE¼NE¼ sec.16, T.4 N., R.40 E., Madison County, in flood control channel and 0.7 mi (1.1 km) south of Byone.	-	1973-77	4- 8-77b	9.94	11
		Henrys Fork basin					
13038900	Targhee Creek near Macks Inn	Lat 44°38'50", long 111°20'30", in NW¼NE¼ sec.11, T.15 N., R.43 E., Fremont County, at State Highway 87 crossing, 1.5 mi (2.4 km) west of junction of State Highway 87 and U.S. Highway 191, and 10.4 mi (16.7 km) north of Macks Inn.	20.8	1963-77	6- 5-77b	7.90	230
13054400	Milk Creek near Tetonia	Lat 43°53'00", long 111°20'40", in NE¼ sec.2, T. 6 N., R.43 E., Teton County, at State Highway 33 and 10.5 mi (16.9 km) northwest of Tetonia.	17.9	1962-77	7-24-77	4.81	69
		Snake River basin					
13061100	Snake River tributary near Osgood	Lat 43°23'07", long 112°08'47", 0.2 mi (0.3 km) west of northeast corner sec.30, T.3 N., R.37 E., Bonneville County, 2.2 mi (3.5 km) west of Osgood and 9 mi (14 km) northwest of Idaho Falls.	7.64	1961-77	4- 8-77b	8.04	9.0
13062650	Snake River tributary No. 9 near Rockford	Lat 43°12'25", long 112°34'24", in SE¼SE¼ sec.22, T.2 S., R.33 E., Bingham County, at county road crossing and 3.2 mi (5.2 km) northwest of Rockland.	17.6	1973-77	7-24-77b	-	2.9

See footnotes at end of table, p. 478.

Annual maximum discharge at crest-stage partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Blackfoot River basin					
13062700	Angus Creek near Henry	Lat 42°49'43", long 111°20'15", in center of sec. 8, T.7 S., R.44 E., Caribou County, at road crossing, 1.1 mi (1.8 km) northeast of Trail guard station, and 11 mi (18 km) southeast of Henry.	13.9	1964-71, 1974-77	4-11-77b	-	10
13065950	Blackfoot River tributary near Goshen	Lat 43°15'30", long 112°02'06", in NE¼SW¼ sec.8, T.2 S., R.38 E., Bingham County, at county road crossing and 4.2 mi (6.8 km) southeast of Goshen.	-	1973-77	-	-	(d)
		Portneuf River basin					
13072890	Dempsey Creek near Lava Hot Springs	Lat 42°35'57", long 112°01'12", in SW¼NE¼ sec.33, T.9 S., R.28 E., Bannock County, at road crossing and 1.0 mi (1.6 km) south of Lava Hot Springs.	-	1973-77	3-23-77b	12.34	68
13075090	Inman Creek near Inkom	Lat 47°49'17", long 112°12'57", in SE¼SW¼ sec.11, T.7 S., R.36 E., Bannock County, at county road crossing and 2.5 mi (4.0 km) northeast of Inkom.	-	1973-77	7-24-77b	13.29	79
13076125	Bannock Creek tributary, near Pocatello	Lat 42°44'27", long 112°36'46", in SW¼NW¼ sec.9, T.8 S., R.33 E., Power County, at road crossing and 12.5 mi (20 km) north of Pauline.	-	1975-77	-	-	(d)
		Raft River basin					
13079800	Heglar Canyon tributary near Rockland	Lat 42°28'25", long 113°08'47", in SE¼SW¼ sec.11, T.11 S., R.28 E., Cassia County, 600 ft (183 m) upstream from Heglar Canyon road crossing and 16 mi (26 km) southwest of Rockland.	7.72	1958, 1962-71, 1973-77	7-24-77b	-	c1
		Goose Creek basin					
13084400	Birch Creek above diversions, near Oakley	Lat 42°10'40", long 113°49'05", in SE¼SW¼NE¼ sec. 25, T.14 S., R.22 E., Cassia County, at county road crossing, 0.3 mi (0.5 km) downstream from North Carson Creek, and 5.3 mi (8.5 km) southeast of Oakley.	-	1973-77	4-10-77b	7.70	28
		Snake River basin					
13084850	"F" Main Drain near Rupert	Lat 42°42'14", long 113°40'45", in SE¼NE¼NW¼ sec. 29, T.8 S., R.24 E., Minidoka County, at 600 North Road crossing, 1.5 mi (2.4 km) northwest of Rupert Cemetery, and 5.9 mi (9.5 km) north of Rupert.	-	1973-77	2-28-77	5.96	60
		Salmon Falls Creek basin					
13106535	Soldier Creek near Rogerson	Lat 42°13'20", long 114°14'45", in SE¼NE¼ sec.7, T.14 S., R.17 E., Twin Falls County, at county road crossing, 100 ft (30 m) upstream from unnamed tributary, and 5 mi (8 km) east of Rogerson.	5.6	1973-77	7-24-77	e7.72	(f)
		Mud Lake-Lost River basins					
13132555	Big Lost River tributary No. 2 near Idaho Falls	Lat 43°22'10", long 112°37'30", in NW¼NE¼ sec.31, T.3 N., R.33 E., Bingham County, at U.S. Highway 20 crossing, 24.6 mi (39.6 km) southeast of Howe, 28.5 mi (45.9 km) northwest of Blackfoot, and 30.0 mi (48.3 km) west of Idaho Falls.	-	1973-77	7-24-77b	-	.5
		Big Wood River basin					
13145700	Schooler Creek near Gooding	Lat 43°11'30", long 114°39'25", in SE¼NE¼ sec.3, T.3 S., R.15 E., Gooding County, at State Highway 46 and 18 mi (29 km) north of Gooding.	2.22	1961-77	-	-	(d)
		Snake River basin					
13153777	Snake River tributary No. 10 near King Hill	Lat 42°53'34", long 115°08'39", in NW¼NW¼NW¼ sec. 22, T.6 S., R.11 E., Elmore County, at Shoestring crossing, about 0.4 mi (0.6 km) above mouth, and 8.5 mi (13.7 km) southeast of King Hill.	-	1973-77	-	-	(d)

Annual maximum discharge at crest-stage partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Clover Creek basin					
13154000	Clover Creek near Bliss	Lat 43°01'30", long 115°00'20", in SE¼SE¼ sec.34, T.4 S., R.12 E., Gooding County, just downstream from Calf Creek and 6.5 mi (10.5 km) northwest of Bliss.	140	1938-43‡, 1957-62‡, 1963-77	3-21-77b	-	g7.6-600
		Little Canyon Creek basin					
13155300	Little Canyon Creek at Stout Crossing, near Glenns Ferry	Lat 43°09'14", long 115°18'32", in NE¼NW¼NE¼ sec. 19, T.3 S., R.10 E., Elmore County, on left bank at county road crossing and 13.8 mi (22.2 km) north of Glenns Ferry.	14.2	1961-65, 1966-71‡, 1973-77	2-24-77b	-	g1.1-111
		Sailor Creek basin					
13157005	Pot Hole Creek tributary near Winter Camp Butte	Lat 42°38'15", long 115°21'25", in SE¼ sec.26, T. 9 S., R.9 E., Owyhee County, at road crossing and 4.4 mi (7.1 km) east of Winter Camp Butte.	-	1973-77	-	-	(f)
		Bruneau River basin					
13170100	Sugar Creek tributary near Grasmere	Lat 42°33'49", long 115°54'25", in NE¼ sec.18, T. 10 S., R.5 E., Owyhee County, at State Highway 51 crossing and 13.5 mi (21.7 km) north of Grasmere.	4.50	1961-71, 1973-77	7-24-77	13.93	100
13170200	Sugar Creek near bruneau	Lat 42°40'36", long 115°53'30", in NW¼SW¼NE¼ sec. 5, T.9 S., R.5 E., Owyhee County, at road crossing and 15 mi (24 km) south of Bruneau.	33.6	1973-77	-	-	(d)
13171700	Poison Creek near Grandview	Lat 42°45'05", long 116°18'20", in SE¼ sec.2, T.8 S., R.1 E., Owyhee County, at road crossing, 16.5 mi (26.5 km) east of Triangle, and 19.5 mi (31.4 km) southwest of Grandview.	-	1973-77	5-24-77	-	g0.3-10.8
13172200	Fossil Creek near Oreana	Lat 43°05'37", long 116°26'27", in SW¼NE¼NW¼ sec. 10, T.4 S., R.1 W., Owyhee County, 670 ft (204 m) downstream from Murphy-Grandview road crossing and 4 mi (6.4 km) northwest of Oreana.	19.7	1961-71, 1973-77	5-24-77	-	(f)
		Squaw Creek basin					
13172800	Little Squaw Creek tributary near Marsing	Lat 43°21'50", long 116°55'17", in SW¼ sec.3, T.1 S., R.5 W., Owyhee County, at U.S. Highway 95 and 14 mi (23 km) southwest of Marsing.	1.81	1961-71, 1973-77	-	-	(d)
		Owyhee River basin					
13176100	Blue Creek near Grasmere	Lat 42°27'32", long 116°44'55", in NE¼NW¼ sec.20, T.11 S., R.2 E., Owyhee County, at road crossing and 19 mi (30 km) northwest of Grasmere.	-	1975-77	4-23-75 3-18-76 7-24-77	6.30 9.60 3.01	h102 h200 a8
		Boise River basin					
13184200	Roaring River near Rocky Bar	Lat 43°42'20", long 115°27'50", in sec.2, T.4 N., R.8 E., Elmore County, 6 mi (10 km) upstream from mouth and 9 mi (14 km) northwest of Rocky Bar.	23.3	1958, 1963-71, 1973-77	6- 8-77b	-	(f)
13204800	Cottonwood Creek near Boise	Lat 43°36'59", long 116°09'30", in NE¼SE¼NW¼NE¼ sec.12, T.3 N., R.2 E., Ada County, at Shaw Mountain Road crossing, at confluence of left bank unnamed tributary, 0.8 mi (1.3 km) downstream from Picket Pin Creek, and 2.0 mi (3.2 km) east of State Capitol Building in Boise.	11.7	1959, 1973-77	3-10-77	-	g1.4-16
13210300	Bryans Run near Boise	Lat 43°27'02", long 116°04'08", in NE¼NW¼ sec.11, T.1 N., R.3 E., Ada County, at U.S. Highway 30 crossing and 15 mi (24 km) southeast of Boise.	7.94	1961-77	-	-	(d)
		Payette River basin					
13234300	Fivemile Creek near Lowman	Lat 44°06'20", long 115°27'30", in NE¼ sec.24, T. 9 N., R.8 E., Boise County, at State Highway 21 crossing and 8.5 mi (13.7 km) east of Lowman.	a7.8	1962-71, 1973-77	6- 7-77	21.68	600
13245400	Tripod Creek at Smiths Ferry	Lat 44°17'55", long 116°05'17", in SW¼ sec.10, T. 11 N., R.3 E., Valley County, at State Highway 15 at Smiths Ferry.	8.63	1962-71, 1973-77	2-22-77	3.52	34
13248900	Cottonwood Creek near Horseshoe Bend	Lat 43°53'35", long 116°12'09", in NW¼NE¼ sec.3, T.6 N., R.2 E., Boise County, at Harris Creek road and 1.5 mi (2.4 km) south of Horseshoe Bend.	6.53	1961-71, 1973-77	3- 9-77	-	c10

Annual maximum discharge at crest-stage partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Payette River basin--Continued					
13248970	Johnson Creek near Montour	Lat 43°55'08", long 116°21'21", in NW¼SE¼NE¼ sec. 29, T.7 N., R.1 E., Gem County, at county road crossing, 0.2 mi (0.3 km) upstream from mouth, 1.4 mi (2.7 km) west of Montour, and 7.8 mi (12.5 km) northeast of Emmett.	-	1973-77	3- 9-77	-	c1.0
13261670	Dixie Creek near Cambridge	Lat 44°29'56", long 116°36'26", in NW¼NE¼NW¼ sec. 5, T.13 N., R.2 W., Washington County, at section line road crossing, 4.4 mi (7.1 km) upstream from mouth, 5.1 mi (8.2 km) southeast of Cambridge, and 5.5 mi (8.8 km) east of Midvale.	-	1973-77	3-10-77b	-	c1.0
		Salmon River basin					
13298500	Salmon River near Challis	Lat 44°22'43", long 114°15'18", in SE¼SE¼ sec.7, T.12 N., R.19 E., Custer County, 250 ft (76 m) downstream from Bayhorse Creek, 9 mi (14 km) south of Challis, and at mile 334.8 (539 km).	a1,800	1928-72‡, 1973-77	6-10-77	4.67	2,900
13301700	Morse Creek above diversions, near May	Lat 44°36'55", long 113°48'25", in SW¼ sec.24, T. 15 N., R.22 E., Custer County, 0.6 mi (1.0 km) upstream from mouth of canyon and 5.2 mi (8.4 km) east of May.	18.0	1962-71, 1973-77	6-10-77b	(i)	g16.6-66
13305800	Hughes Creek near North Fork	Lat 45°31'12", long 114°01'59", in SW¼NE¼SW¼ sec. 6, T.25 N., R.21 E., Lemhi County, just upstream from West Fork Hughes Creek and Allen Creek and 8.0 mi (13 km) northwest of North Fork.	15.7	1962-77	6-10-77b	-	g16.4-112
		Clearwater River basin					
13336450	Rackcliff Creek at O'Hara guard station	Lat 46°05'05", long 115°29'38" (unsurveyed), Idaho County, in Rackcliff campground, 1.5 mi (2.4 km) east of O'Hara youth camp, and 8.1 mi (13.0 km) east of Lowell.	8.44	1973-77	5- 2-77	(f)	a50
13337540	Legget Creek near Golden	Lat 45°49'36", long 115°37'35" (unsurveyed), Idaho County, at mouth, at State Highway 14 crossing, 2.8 mi (4.5 km) northeast of Golden, and 13 mi (20.9 km) west of Elk City.	7.78	1973-77	5- 2-77	16.25	44
13337700	Peasley Creek near Golden	Lat 45°49'05", long 115°49'01", in SE¼ sec.27, T. 29 N., R.5 E. (unsurveyed), Idaho County, at State Highway 14 crossing and 6.6 mi (10.6 km) west of Golden.	14.2	1961-71, 1974-77	5- 2-77	(f)	a45
13339700	Canal Gulch Creek at Pierce ranger station	Lat 46°29'50", long 115°47'30", in NW¼ sec.2, T. 36 N., R.5 E., Clearwater County, at Pierce ranger station and 0.5 mi (0.8 km) north of Pierce.	a6.0	1962-71, 1973-77	5- 2-77	13.35	115
13339900	Deer Creek near Orofino	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T. 36 N., R.2 E., Clearwater County, at dirt road and 3.0 mi (4.8 km) east of Orofino.	a6.8	1962-71, 1974-77	1-18-77	7.70	62
13341100	Cold Springs Creek near Craigmont	Lat 46°14'10", long 116°31'06", in NE¼ sec.1, T. 33 N., R.2 W., Lewis County, at U.S. Highway 95 crossing and 2.7 mi (4.3 km) west of Craigmont.	8.07	1961-65, 1967-71, 1975-77	4- 8-77	(f)	c20
13341300	Bloom Creek near Bovill	Lat 46°51'30", long 116°17'30", in NE¼ sec.35, T. 41 N., R.1 E., Clearwater County, 200 ft (67 m) upstream from mouth and 4.8 mi (7.7 km) east of Bovill.	3.66	1959-71‡, 1973-77	3- 9-77	2.58	36
13343010	Lindsay Creek tributary No. 4 near Lewiston	Lat 46°22'10", long 116°53'28", in NE¼NW¼NW¼ sec. 19, T.35 N., R.4 W., Nez Perce County, at road crossing, 1.5 mi (2.4 km) east of Lewiston Orchards,and 6 mi (10 km) southeast of Lewiston.	2.96	1973-77	-	-	(d)
13344800	Deep Creek near Potlatch	Lat 46°57'38", long 116°56'04", in SW¼ sec.23, T. 42 N., R.5 W., Latah County, at county road crossing and 3.3 mi (5.3 km) northwest of Potlatch.	36.6	1960-77	1-18-77	12.17	330
13346750	Paradise Creek at Moscow	Lat 46°43'27", long 116°58'45", in SW¼SW¼NW¼ sec. 16, T.39 N., R.5 W., Latah County, on Mountain View Avenue at the southeast edge of Moscow.	14.0	1974-77	1-18-77	10.09	90

‡ Operated as a continuous-record gaging station.
a Approximately.
b Estimated; exact date undetermined.
c Known to be less than figure listed.
d No evidence of flow during year.
e Datum of gage changed this water year.
f Undetermined.
g Known to be greater than first figure, but less than second.
h Revised.
i Known to be less than 5.07 ft.

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Bear River basin				
Thomas Fork 10042500	Bear River	SW¼ sec.10, T.14 S., R.46 E., Bear Lake County, at road crossing 4 mi south of Raymond.	202	1942-52	9- 1-77	a9.22
St. Charles Creek 10045600	Bear Lake	NW¼ sec.20, T.15 S., R.43 E., Bear Lake County, 3.5 mi west of St. Charles.	17.4	1962-65	6-14-77 7-26-77	a36.9 a25.2
Paris Creek 10059900	Bear Lake outlet channel	NE¼ sec.17, T.14 S., R.43 E., Bear Lake County, 5 mi upstream from Utah Power & Light Company and 3 mi southwest of Paris.	18.6	1944-47	6-14-77 7-26-77	a17.1 a1.39
Mill Creek 10062500	Bear River	SE¼ sec.2, T.13 S., R.42 E., Bear Lake County, 0.3 mi upstream from West Fork and 3 mi west of Liberty.	18.4	1944-47	6-14-77 7-26-77	a .94 a .97
North Creek 10064500	Mill Creek	SE¼ sec.11, T.12 S., R.42 E., Bear Lake County, 3.5 mi upstream from Emigration Creek and 6 mi northwest of Liberty.	10.9	1943-44	6-14-77 7-26-77	a1.61 a .72
Georgetown Creek 10068896	Bear River	Lat 42°31'34", long 111°15'45", SW¼SE¼ sec.25, T.10 S., R.44 E., Bear Lake County, 7 mi northeast of Georgetown below mine at crossing.	-	-	10-20-76	1.68
Georgetown Creek 10068900	Bear River	Lat 42°30'12", long 111°16'30", SW¼SE¼SW¼ sec.35, T.10 S., R.44 E., Bear Lake County, 5 mi northeast of Georgetown.	-	1913	10-20-76	28.4
Right Fork Spring	Georgetown Creek	SE¼SE¼ sec.4, T.41 E., R.44 E., Bear Lake County, in water collection box for municipal supply for Georgetown, and 3.2 mi northeast of Georgetown.	-	-	7-15-77	2.65
Georgetown Creek 10069000	Bear River	NE¼ sec.4, T.11 S., R.44 E., Bear Lake County, 150 ft downstream from Little Right Hand Fork 3 mi northeast of Georgetown.	22.2	1911-14, 1939-56	10-20-76 6-14-77 7-14-77 8-31-77	37.8 a2.3 a3.3 a17.9
Skinner Creek 10071500	Bear River	SW¼ sec.8, T.11 S., R.43 E., Bear Lake County, 330 ft downstream from point where flow through Minnig Mill is returned to creek and 0.7 mi west of Nounan Post Office.	5.41	1939-45	6-14-77 7-14-77 9- 1-77	a2.76 a1.79 a1.74
Stauffer Creek 10072000	Bear River	N½ sec.15, T.11 S., R.43 E., Bear Lake County, 0.6 mi upstream from mouth, 2 mi east of Nounan Post Office, and 2.5 mi west of Georgetown.	-	1939-44	6-14-77 7-14-77 9- 1-77	0 0 a3.69
South Sulfur Canyon 10072790	Bear River	NW¼SW¼SE¼ sec.17, T.9 S., R.43 E., Caribou County, 6 mi southeast of Soda Springs.	-	-	10-21-76	.31
Soda Creek 10077000	Bear River	SW¼SW¼ sec.24, T.8 S., R.41 E., Caribou County, 0.1 mi below unnamed tributary and 4 mi north of Soda Springs.	b52	1913-26, 1928-29	6-15-77 7-14-77	a48.7 a41.7
Whiskey Springs Creek 10080450	Bear River	NE¼ sec.24, T.11 S., R.40 E., Caribou County, at road crossing 1.2 mi east of Lago and 3.7 mi south of Niter.	-	-	6-15-77 7-21-77	a10.3 a12.4
Trout Creek 10081600	Bear River	NE¼ sec.1, T.12 S., R.40 E., Franklin County, at secondary road crossing and 0.1 mi east of Thatcher.	-	196	6-15-77 7-21-77	a6.49 a1.56
Mink Creek 10087500	Bear River	NE¼NW¼ sec.33, T.13 S., R.41 E., Franklin County, 500 ft downstream from Dry Fork and 3 mi northeast of town of Mink Creek.	19.3	1947-52, 1955-62	6-15-77	a26.5
Birch Creek Springs	Birch Creek	SW¼NE¼NW¼ sec.8, T.14 S., R.41 E., Franklin County, 25 ft below 4-in diameter pipe diverting water into Mink Creek municipal water system.	-	-	4-14-77	3.57

a Measurement by Idaho Department of Water Resources.
b Approximately.

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Bear River basin—Continued						
Battle Creek tributary 10090800	Battle Creek	SW¼ sec.20, T.13 S., R.40 E., Franklin County, and 2 mi northeast of Treasureton.	b4.5	-	6- 8-77 6-14-77 7-21-77 9-29-77	a .17 a .21 a .10 .62
Swan Lake Creek 10091130	Deep Creek	NE¼NW¼ sec.35, T.12 S., R.38 E., Bannock County, at road crossing and 2.2 mi north of Swan Lake.	-	1973-75, 1976	6- 8-77 7-15-77 9-30-77	a1.11 a .56 1.09
Weston Creek 10091680	Bear River	NW¼ sec.15, T.15 S., R.37 E., Franklin County, upstream from Weston Creek Reservoir and 7.8 mi southeast of Malad City.	-	-	6-16-77	a .50
Maple Creek 10096500	Cub River	NW¼ sec.14, T.16 S., R.40 E., Franklin County, 80 ft downstream from Deep Creek and 3 mi east of Franklin.	21.2	1946-52	6-16-77	a1.26
Cub River 10096700	Bear River	SW¼ sec.20, T.16 S., R.40 E., Franklin County, .75 mi west of Franklin.	-	-	6-16-77 7-25-77	a6.76 a4.12
Worm Creek 10098500	Bear River	NW¼ sec.10, T.15 S., R.40 E., Franklin County, 0.3 mi upstream from backwater of Glendale Reservoir and 6 mi northeast of Preston.	11.0	1943-46	6-15-77 7-25-77	a22.6 a .67
Worm Creek 10098600	Bear River	Lat 42°04'35", long 111°51'05", in NW¼ sec.36, T.15 S., R.39 E., Franklin County, on right bank 0.5 mi upstream from Cub River canal and 2 mi southeast of Preston.	b24	1962-63	6-16-77	a .35
Worm Creek 10098700	Bear River	N½ sec.1, T.16 S., R.39 E., Franklin County, on right bank 10 ft upstream from road bridge, 250 ft southwest of Amalgamated Sugar Company's factory, and 2.5 mi southeast of Preston.	b24	1962-63	6-16-77 7-25-77	a3.66 a5.73
Malad Springs 10118200	Little Malad River	Sec.10, T.14 S., R.35 E., Oneida County, at springs 1 mi above dam on Samaria Reservoir No. 2, 5.8 mi northwest of Malad City, and 8.8 mi above Little Malad River.	b3.3	1931-32, 1940-47, 1947-61	7- 9-77	0
Pleasantview Springs 10118300	Malad River	NE¼ sec.2, T.15 S., R.35 E., Oneida County, .5 mi southwest of Pleasantview.	-	-	7-20-77	0
Little Malad Springs 10118900	Malad River	NW¼ sec.23, T.12 S., R.34 E., Oneida County, .25 mi above flowline of Daniels Reservoir and 1.7 mi southwest of Daniels.	-	-	7-21-77	a10.9
Devil Creek 10122500	Malad River	Sec.12, T.13 S., R.36 E., Oneida County, 1.3 mi upstream from highway crossing of Campbell Creek, 4.5 mi upstream from Evans dividers, and 7.5 mi northeast of Malad City.	b13	1938-61	6- 9-77 7-15-77	a6.63 a5.87
Tributaries between Great Salt Lake Desert and Bear River						
Deep Creek 10172975	Great Salt Lake	Lat 42°07'15", long 112°40'00", in sec.13, T.15 S., R.32 E., Oneida County, 2 mi south of Holbrook.		1931-32	6- 9-77 7-20-77	a .41 a .34
Rock Creek 10172970	Deep Creek	Lat 42°14', long 112°44', in NW¼ sec.9, T.14 S., R.32 E., Oneida County, at County road crossing and 6.0 mi northwest of Holbrook.	44	1962-64, 1965-67	6-10-77 9-30-77	a5.06 1.20

a Measurement by Idaho Department of Water Resources.
b Approximately.

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Kootenai River basin				
Boulder Creek	Kootenai River	Lat 48°33', long 116°14', in NW¼ sec.17, T. 60 N., R.2 E., Boundary County, Kaniksu National Forest, 10 mi southwest of Bonners Ferry.	-	-	6-16-77	a24
					7- 5-77	a9
					7-11-77	a9
					7-19-77	a28
					7-27-77	a8
					8-11-77	a3
Boulder Creek 12305500	Kootenai River	Lat 48°35'54", long 116°05'30", in NE¼ sec. 32, T.61 N., R.3 E., Boundary County, Kaniksu National Forest, 0.8 mi downstream from McGinty Creek 2.5 mi southwest of Leonia and at mile 2.8.	b53	1928-71	4-14-77	a341
					4-29-77	a531
Kingsley Creek	Curley Creek	Lat 48°43'19", long 116°02'49", in unsectioned area at intended point of diversion, 0.1 mi east of Idaho-Montana State line, 300 ft above mouth, 2.0 mi north by northeast of Herman Lake, 6.7 mi east of Moyie Springs.	1.99	-	7-21-77	.63
Curley Creek	Kootenai River	NE¼NE¼ sec.27, T.62 N., R.3 E., Boundary County, at county road crossing.	-	-	6-20-77	c6.18
					7-18-77	c5.05
					8- 5-77	c3.97
					9- 6-77	c2.98
Gillan Creek	Round Prairie Creek	Lat 48°59', long 116°12', in SE¼ sec.17, T. 65 N., R.2 E., Boundary County, Kaniksu National Forest, 2.0 mi southwest of Eastport.	-	-	5-12-77	a16
					5-23-77	a13
					5-31-77	a9
					6-13-77	a8
					7-25-77	a2
					8- 4-77	a2
Gillan Creek	Round Prairie Creek	Lat 48°58', long 116°13', in SW¼ sec.21, T.65 N., R.2 E., Boundary County, Kaniksu National Forest, 2.5 mi southwest of Eastport.	-	-	5-12-77	a10
					5-23-77	a13
					5-31-77	a9
					6-13-77	a7
					7-25-77	a2
					8- 4-77	a2
Round Prairie Creek 12306800	Moyie River	Lat 48°57'53", long 116°11'52", in SW¼SE¼ SE¼ sec.21, T.65 N., R.2 E., Boundary County, Kaniksu National Forest, 0.4 mi downstream from Robinson Lake, 2.5 mi south of Eastport, and at mile 2.5.	-	1974-76	6- 7-77	c18.0
					7- 5-77	c1.88
					8- 5-77	c .80
					9- 6-77	c .59
Keno Creek	Deer Creek	Lat 48°33', long 116°07', in NW¼SW¼ sec.4, T.63 N., R.3 E., Boundary County, Kaniksu National Forest, 2.5 mi northwest of Meadow Creek.	-	-	4-14-77	a16
					4-27-77	a40
					5-10-77	a30
					5-13-77	a30
					5-24-77	a20
					6- 8-77	a15
					6-17-77	a14
					7-20-77	a4
					8-30-77	a3
Deer Creek	Moyie River	Lat 48°49', long 116°07', in NE¼ sec.18, T. 63 N., R.3 E., Boundary County, Kaniksu National Forest, 1.5 mi southeast of Meadow Creek.	-	-	4-14-77	a57
					4-21-77	a34
					4-27-77	a146
					6- 8-77	a52
					6-17-77	a23
					6-24-77	a32
					6-30-77	a14
					7-20-77	a9
					7-29-77	a8
					8-30-77	a9
Skin Creek 12306850	Moyie River	Lat 48°46'20", long 116°03'20", in NE¼ sec. 36, T.63 N., R.2 E., Boundary County, at Eileen and 0.8 mi upstream from mouth.	-	1925	6-20-77	c6.30
					7-18-77	c2.07
					8- 5-77	c1.12
					9- 6-77	c1.24
West Branch Cabin Creek	Cabin Creek	SE¼ SW¼ sec.8, T.61 N., R.2 E., Boundary County, 5 mi southeast of Bonners Ferry.	-	-	6-20-77	c1.39
					8- 5-77	c .25
					9- 7-77	c .19
Cow Creek 12309000	Kootenai River	Lat 48°40', long 116°15', in SW¼ sec.31, T.62 N., R.2 E., Boundary County, at road crossing 3 mi southeast of Bonners Ferry.	14.7	1928-34	6- 8-77	c4.56
					7- 6-77	c .65
					8- 5-77	c .41
					9- 7-77	c .34
Trail Creek	Deep Creek	Lat 48°34'28", long 116°23'20", in NW¼ sec.7, T.60 N., R.1 E., Boundary County, at road crossing .5 mi southeast of Naples.	-	-	4- 8-77	a13
					4-19-77	a9
					5- 6-77	a12
					5-19-77	a8
					6- 3-77	a6
					6-10-77	a4
					6-22-77	a3
					6-28-77	a1
					6-30-77	a1
					7-19-77	a2
					7-27-77	a1
					8-10-77	a0

See footnotes on p. 502.

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Kootenai River basin--Continued						
Trail Creek 12310800	Deep Creek	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., Boundary County, at railroad culvert, 0.4 mi upstream from mouth, and at Naples.	b16	1961-71d, 1973-76d	6-29-77 7-18-77 8- 6-77 9- 7-77	c .87 c .36 c .03 c .39
Fall Creek 12310850	Deep Creek	SW¼NW¼ sec.1, T.60 N., R.1 W., Boundary County, beside county road one mi northwest of Naples.	-	-	6-21-77 7-18-77 8- 6-77 9- 7-77	c16.0 c7.63 c4.58 c3.69
Twenty Mile Creek 12310900	Deep Creek	NW¼NE¼ sec.6, T.6 N., R.1 E., Boundary County, at county road crossing 1 mi northeast of Naples.	-	-	6-21-77 7-18-77 8- 6-77 9- 7-77	c .09 c .04 0 c .05
Browns Creek 12310950	Deep Creek	NE¼SE¼ sec.31, T.61 N., R.1 E., Boundary County, at Highway 95 crossing, 1 mi northeast of Naples.	-	-	6-21-77 7-18-77 8- 6-77 9- 7-77	c0 c0 c0 c0
Ruby Creek 12310960	Deep Creek	SE¼SE¼ sec.24, T.61 N., R.1 W., Boundary County, just upstream from mouth, and 2.5 mi west of Moravia.	-	-	6-20-77 7-18-77 8- 6-77 9- 7-77	c7.51 c1.17 c1.68 c1.82
Deep Creek 12311000	Kootenai River	Lat 48°38', long 116°24', in sec.18, T.61 N., R.1 E., Boundary County, at highway bridge, 1 mi downstream from Ruby Creek, and 1 mi southeast of Moravia.	133	1928-50‡	6-20-77 7-18-77 8- 6-77 9- 7-77	c38.6 c19.1 c44.3 c12.9
Snow Creek 12311500	Deep Creek	Lat 48°39'50", long 116°24'30", in SW¼ sec. 1, T.61 N., R.1 W., Boundary County, 2 mi northwest of Moravia and 5 mi southwest of Bonners Ferry.	19.5	1928-34	6- 8-77 7- 6-77 8- 6-77	c55.7 c6.14 c2.69
Caribou Creek 12312000	Snow Creek	Lat 48°39'40", long 116°24'10", in NE¼ sec.12, T.61 N., R.1 W., Boundary County, on right bank 600 ft upstream from road following edge of valley and 1.5 mi northwest of Moravia.	14.0	1928-34	6- 8-77 7- 6-77 8- 6-77 9- 7-77	c41.1 c4.39 c1.89 c3.06
Myrtle Creek	Kootenai River	Lat 48°44', long 116°35', in NW¼ sec.15, T.62 N., R.2 W., Boundary County, Kaniksu National Forest, 12.5 mi west of Bonners Ferry.	-	-	5-19-77 5-25-77 7-18-77 7-26-77 8- 2-77 8-31-77	a48 a54 a7 a6 a5 a8
Myrtle Creek	Kootenai River	Lat 48°42', long 116°25', in NW¼ sec.24, T.62 N., R.1 W., Boundary County, Kaniksu National Forest, 4.5 mi west of Bonners Ferry.	-	-	4-15-77 4-19-77 5- 6-77 7-18-77 8-30-77	a44 a31 a209 a5 a11
Rock Creek 12315200	Kootenai River	Lat 48°50'42", long 116°22'20", in SE¼ NW¼ NW¼ sec.5, T.63 N., R.1 E., Boundary County, at culvert on Eastside Road, 0.5 mi upstream from mouth, and 4.0 mi south of Copeland.	-	1976	6- 7-77 7- 5-77 8- 5-77 9- 6-77	c .82 c .20 c .17 c .08
Trout Creek 12315400	Kootenai River	Lat 48°49'56", long 116°25'10", in NE¼NE¼ NE¼ sec.11, T.63 N., R.1 W., Boundary County, 0.2 mi south of overflow, at bridge on Westside Road, 1.0 mi upstream from mouth, and 5.1 mi southwest of Copeland.	-	1928-34, 1976	6- 8-77 7- 5-77 8- 5-77 9- 6-77	c71.8 c7.54 c2.70 c3.10
E. Fk. Mission Creek	Mission Creek	Lat 48°59', long 116°20', in NW¼ sec.16, T.65 N., R.1 E., Boundary County, Kaniksu Nacional Forest, 7 mi east of Porthill and 0.5 mi downstream from International Boundary.	-	-	5-12-77 6- 1-77 6-13-77 7-19-77 8-11-77 8-31-77	a42 a29 a29 a8 a3 a4
Mission Creek 12317000	Kootenai River	SE¼ sec.18, T.63 N., R.1 E., Boundary County, just upstream from abandoned railroad grade and 1.0 mi south of Copeland.	-	-	6- 7-77 7- 5-77	c21.5 c8.32
Brush Creek 12317500	Kootenai River	Lat 48°52'55", long 116°22'29", in SE¼NE¼SE¼ sec.19, T.64 N., R.1 E., Boundary County, at culvert on Eastside Road, 1.1 mi upstream from confluence with Mission Creek.	b7.2	1928-34‡, 1936, 1976	6- 7-77 7- 1-77 8- 4-77 9- 6-77	c .27 c .004 c0 c0
Hall Creek 12318700	Lucas Creek	SE¼ sec.25, T.65 N., R.1 W., Boundary County, just above highway crossing and 3.0 mi northeast of Copeland.	-	-	7-18-77 8- 5-77	c .04 c .08

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Kootenai River basin--Continued				
Parker Creek 12319550	Kootenai River	Lat 48°57'02", long 116°32'06", in SW¼SW¼SE¼ sec.25, T.65 N., R. 2 W., Boundary County, at bridge on Westside Road, 0.9 mi upstream from mouth, and 4.9 mi northwest of Copeland.	-	-	6- 7-77 7- 5-77 8- 5-77 9- 6-77	c55.9 c8.65 c2.16 c4.28
Long Canyon Creek 12320500	Kootenai River	Lat 48°57'02", long 116°32'06", in SW¼SW¼ SE¼ sec.25, T.65 N., R.2 W., Boundary County, at bridge on Westside Road, 0.8 mi upstream from mouth, and 7.5 mi northwest of Copeland.	-	-	4-12-77 4-18-77 4-26-77 5- 5-77 5-11-77 6-15-77 6-22-77 6-27-77 6-29-77 7-26-77 7-27-77 8-29-77	a31 a28 a183 a178 a233 a86 a63 a41 a35 a30 a18 a37
		Smith Creek basin				
Upper Cow Creek 12320850	Cow Creek	Lat 48°55', long 116°41', in NW¼ sec.24, T.64, N., R.4 W., Boundary County, Kaniksu National Forest.	-	-	5-26-77 5-27-77 7- 6-77 7-15-77	a .40 a .10 a0 a0
Cow Creek 12320900	Smith Creek	Lat 48°55', long 116°41', in NW¼ sec.11, T.64, N., R.3 W., Boundary County, Kaniksu National Forest.	-	-	5-18-77 5-27-77	a209 a168
Smith Creek 12320950	Kootenai River	Lat 48°56', long 116°48', in NE¼ sec. 1, T.46 N., R.3 W., Boundary County, Kaniksu National Forest.	-	-	5-16-77 6- 7-77 6-14-77 7-15-77 8- 3-77	a374 a341 a201 a42 a22
Smith Creek 12321000	Kootenai River	Lat 48°57' 40", long 116°33'15", in SE¼ NW¼ NE¼ sec.26, T.65 N., R.2 W., Boundary County, at bridge on Westside Road, 1.1 mi upstream from mouth, and 8.3 mi northwest of Copeland.	b70	1928-60‡, 1962-67, 1976	4-25-77 5-16-77 6- 7-77 6-14-77 6-22-77 6-27-77 6-29-77 7- 5-77 7-15-77 7-28-77 8-29-77	a632 a318 c294 a172 a109 a60 a65 c53 a39 a34 a73
		Kootenai River basin--Continued				
Kootenai River 12322000	Columbia River	Lat 49°00'00", long 116°30'10", in SW¼ sec.8, T.65 N., R.1 W., Boundary County, on right bank 300 ft south of International Boundary at Porthill, and at mile 105.63.	13,700	1972-76	10- 1-76 12- 1-76 2- 1-77 3-10-77 3-31-77 8-11-77 8-19-77	10,500 16,400 10,600 11,500 15,600 8,830 19,700
Kootenay River 12322900	Columbia River	Lat 49°29'40', long 117°20'04", at Grohman Narrows, 2 mi downstream from Nelson, British Columbia; measurements referred to gage No. 10 at Nelson (sta 8NJ-9 of Water Survey of Canada).	17,700	1932-76	2-24-77 6-23-77 9-14-77	19,000 23,000 15,500
		Pend Oreille River basin				
Twin Creek 12392040	Clark Fork River	Lat 48°04', long 116°07', in SE¼ sec.30, T. 55 N., R.3 E., Bonner County, Kaniksu National Forest and 2.5 mi west of Cabinet Gorge Dam.	-	-	4-11-77 4-25-77 5- 3-77 5- 9-77 5-16-77 5-24-77 6- 9-77	a11 a27 a22 a12 a8 a4 a2
Mosquito Creek 12392045	Clark Fork River	NE¼SW¼ sec.2, T.55 N., R.2 E., Bonner County.	-	-	6-28-77 7-18-77 8-18-77 9-13-77	c14.9 c10.2 c3.4 c5.2
Trapper Creek 12392100	Lightning Creek	Lat 48°15'57", long 116°07'00", in NE¼ sec. 30, T.57 N., R.3 E., Bonner County, at forest road and 9.8 mi north of Clark Fork.	1.12	1961-71d, 1963-76d	6- 6-77 7- 6-77 8-18-77 9-13-77	c1.15 c0 c0 c0
E. Fk. Lightning Creek 12392105	Lightning Creek	Lat 48°14', long 116°06', in NE¼SW¼ sec.32, T.57 N., R.2 E., Bonner County, Kaniksu National Forest, 1.7 northwest of Bee Top Mountain.	-	-	4- 4-77 4-11-77 4-25-77 5- 3-77	a23 a132 a255 a238
Spring Creek	Lightning Creek	NE¼NE¼ sec.34, T.56 N., R.2 E., Bonner County, 0.5 mi above mouth and 1 mi northeast of Clark Fork.	-	-	7-19-77 8-18-77	c33.8 c23.4

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Pend Oreille River basin--Continued				
Lightning Creek 12392155	Clark Fork River	Lat 48°02'52", long 116°11'24", in NW¼SW¼ NE¼ sec.3, T.55 N., R.2 E., Bonner County, 100 ft downstream from N.P. Railroad bridge, upstream from mouth, and 0.5 mi west of Clark Fork.	b100	1974-76	7-19-77	c26.4
Johnson Creek 12392155	Clark Fork River	Lat 48°08', long 116 13', in SE¼NE¼ sec. 8, T.55 N., R.2 E., Bonner County, Kaniksu National Forest, 2.5 mi west of Clark Fork.	-	-	4- 4-77	a6
					4-11-77	a17
					4-18-77	a16
					4-25-77	a16
					5- 3-77	a22
					5- 9-77	a17
					5-16-77	a13
					5-24-77	a11
					6- 9-77	a8
					8-16-77	a4
Halfway Creek 12392160	Granite Creek	Lat 48°05', long 116°28', in SE¼SE¼ sec.30, T.55 N., R.1 E., Bonner County, Kaniksu National Forest, and 10 mi southwest of Clark Fork.	-	-	4- 6-77	a .4
					4-13-77	a .5
					4-20-77	1
					4-28-77	1
					5- 5-77	1
					5-12-77	a .5
Granite Creek 12392162	Pend Oreille Lake	Lat 48°05', long 116°24', SW¼NW¼ sec.25, T. 55 N., R.1 W., Bonner County, Kaniksu National Forest and at Granite.	-	-	4- 6-77	a16
					4-13-77	a23
					4-20-77	a26
					4-28-77	a39
					5- 5-77	a26
					5-12-77	a28
					5-18-77	a21
					6- 8-77	a13
					6-29-77	a9
					8-18-77	a5
North Gold Creek	Pend Oreille Lake	Lat 47°58', long 116°25', in SW¼NW¼ sec. 2, T.53 N., R.1 W., Bonner County, and 0.5 mi west of Lakeview.	-	-	4-13-77	a5
					4-20-77	a5
					4-28-77	a12
					5- 5-77	a10
					5-12-77	a8
					5-18-77	a6
					6- 8-77	a4
					6-29-77	a2
					8-18-77	a1
					9- 1-77	a1
Riser Creek 12392170	Pend Oreille Lake	NW¼SE¼ sec.1, T.56 N., R.1 E., Bonner County.	-	-	6-28-77	c0
					7-19-77	c0
					8-18-77	c0
					9-13-77	c0
Strong Creek	Pend Oreille Lake	Lat 48°15', long 116°17', in NW¼NW¼ sec. 36, T.57 N., R.1 E., Bonner County, and 0.5 mi northeast of Hope.	-	-	3-29-77	a4
					4- 5-77	a3
					4-11-77	a20
					4-18-77	a14
					4-25-77	a38
					5- 3-77	a32
					5-10-77	a17
					5-19-77	a12
					8-16-77	a2
Strong Creek 12392175	Pend Oreille Lake	NW¼SE¼ sec.35, T.57 N., R.1 E., Bonner County, just below U.S. Highway 200 crossing at Hope.	-	-	6-28-77	c4.65
					7-19-77	c2.69
					8-18-77	c .99
					9-13-77	c .75
Trestle Creek 12392180	Pend Oreille Lake	SE¼SW¼ sec.16, T.57 N., R.1 E., Bonner County, just above U.S. Highway 200 crossing.	-	-	6-28-77	c12.9
					7-19-77	c7.36
					8-18-77	c3.37
					9-13-77	c3.19
Colburn Creek 12392345	Pack River	SW¼SW¼ sec.1, T.58 N., R.2 W., Bonner County, at road crossing.	-	-	7-19-77	c1.46
					8-11-77	c .46
					9- 9-77	c .54
Sand Creek	Pack River	SW¼NE¼ sec.33, T.59 N., R.1 W., Bonner County, at road crossing 1.0 mi east of Samuels.	-	-	6-21-77	c1.57
					7-19-77	c1.04
					8-11-77	c1.24
					9-13-77	c1.66
N. Fk. Grouse Creek	Grouse Creek	Lat 48°27', long 116°22', in NW¼ sec. 20, T.59 N., R.1 E., Bonner County, Kaniksu National Forest, 5.0 mi southeast of McArthur.	-	-	3-31-77	a7
					4- 7-77	a18
					4-12-77	a23
					4-19-77	a20
					4-27-77	a57
					5- 4-77	a72
					5-11-77	a62
					5-19-77	a27
					5-27-77	a32
					6- 7-77	a25
					8-30-77	a4

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Pend Oreille River basin--Continued				
Grouse Creek	Pack River	Lat 48 25', long 116 26, in SE¼SW¼ sec.35, T.59 N., Bonner County.	-	-	3-31-77	a32
					4- 7-77	a103
					4-12-77	a152
					4-19-77	a133
					4-27-77	a340
					5- 4-77	a391
					5-11-77	a303
					5-19-77	a116
					5-27-77	a109
					7- 6-77	a91
					8-30-77	a15
Gold Creek	Pack River	NE¼ sec.14, T.58 N., R.1 W., Bonner County, 5.0 mi southeast of Colburn.	-	-	7-19-77	c .07
					8-11-77	c .08
					9-13-77	c .07
Trapper Creek	Rapid Lightning Creek	Lat 48°24', long 116°16', in NE¼SE¼ sec.1, T. 58 N., R.1 E., Bonner County, Kaniksu National Forest and 12.0 mi east of Colburn.	-	-	4- 4-77	a3
					4- 7-77	a9
					4-12-77	a9
					4-19-77	a10
					4-26-77	a28
					5- 4-77	a38
					5-11-77	a28
					5-19-77	a20
					6-10-77	a18
					8-30-77	a4
North Dome	Plume Creek	Lat 48°22', long 116°17', in SE¼SW¼ sec.24, T. 58 N., R.1 E., Bonner County, Kaniksu National Forest, and 11.0 mi east of Colburn.	-	-	4-14-77	a .3
					4-21-77	a .3
					5-10-77	a1
					5-20-77	a1
					6-13-77	a1
Steve Creek	North Dome Creek	Lat 48°22', long 116°16', in NW¼ sec.24, T. 58 N., R.1 E., Bonner County, Kaniksu National Forest and 11 mi east of Colburn.	-	-	4-14-77	a .1
					4-21-77	a .1
					5-10-77	a .1
					5-20-77	a .1
					6-13-77	a .1
Rapid Lightning Creek 12392450	Pack River	Lat 48°21'55", long 116°24'05", in SE¼SW¼NE¼ sec.24, T.58 N., R.1 W., Bonner County, 0.3 mi upstream from mouth and 6.0 mi southeast of Colburn.	-	1958-65, 1974-76	6- 6-77	c47.6
					7-19-77	c16.2
					8-11-77	c11.6
					9-13-77	c 9.76
Schweitzer Creek 12392600	Sand Creek	NW¼NE¼ sec.35, T.58 N., R.2 W., Bonner County, at county road crossing 0.2 mi above mouth.	-	-	6-21-77	c3.43
					7-19-77	c .78
					8-23-77	c .16
					9- 6-77	c .31
Little Sand Creek tributary #1	Little Sand Creek	Lat 48°20', long 116°36', in NW¼ sec.5, T.57 N., R.2 W., Bonner County, Kaniksu National Forest, and 4 mi northwest of Sandpoint.	-	-	4- 5-77	a .01
					4-12-77	a .02
					4-22-77	a .05
					4-27-77	a .1
					5- 6-77	a .1
					5-13-77	a .1
					5-20-77	a .1
					5-26-77	a .05
					6- 7-77	a .04
Little Sand Creek	Sand Creek	Lat 48°20', long 116°36', in SW¼SW¼ sec.33, T.58 N., R.2 W., Bonner County, Kaniksu National Forest, and 4 mi northwest of Sandpoint.	-	-	4- 5-77	a7
					4-12-77	a19
					4-22-77	a21
					4-27-77	a39
					5- 6-77	a36
					5-13-77	a30
					5-20-77	a25
					5-26-77	a21
					6- 7-77	a20
					8-31-77	a8
Little Sand Creek tributary #2	Little Sand Creek	Lat 48°20', long 116°37', in SW¼ sec.33, T.58 N., R.2 W., Bonner County, Kaniksu National Forest, and 4 mi northwest of Sandpoint.	-	-	4- 5-77	a .1
					4-12-77	a .4
					4-22-77	a1.0
					4-27-77	a1.0
					5- 6-77	a1.0
					5-13-77	a1.0
					5-20-77	a .5
					5-26-77	a .3
					6- 7-77	a1
Little Sand Creek	Sand Creek	Lat 48°19'35", long 116°34'42", NE¼NE¼NW¼ sec.4, T.57 N., R.2 W., Bonner County, 100 ft upstream from reservoir of Sandpoint City Water System, 1.8 mi upstream from mouth, 3.2 mi northwest of Sandpoint.	11.4	-	7-20-77	6.10

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Pend Oreille River basin--Continued				
Syringa Creek 12392750	Pend Oreille River	SW¼NW¼ sec.16, T.57 N., R.2 W., Bonner County, at county road crossing 1.5 mi west of Sandpoint.	-	-	6-21-77	c .98
					7-26-77	c .41
					8-23-77	c0
					9- 9-77	c .03
Hornby Creek 12392800	Pend Oreille River	Lat 48°15'10", long 116°37'50", in SW¼SW¼ sec.30, T.57 N., R.2 W., Bonner County, at U.S. Highway 2 crossing and 1.2 mi west of Dover.	b2.2	1961-71d, 1975-76	6-21-77	c2.06
					6-26-77	c .80
					9- 9-77	c .54
Carr Creek 12392805	Pend Oreille River	NE¼SW¼ sec.26, T.57 N., R.3 W., Bonner County, and at road crossing 2.5 mi west of Dover.	-	-	6-21-77	c2.77
					7-26-77	c .34
					8-23-77	c .03
Smith Creek 12392810	Pend Oreille River	SW¼SW¼ sec.27, T.57 N., R.3 W., Bonner County, at road corssing 3.5 mi west of Dover.	-	-	6-21-77	c .25
					7-26-77	c0
					8-23-77	c0
					9- 9-77	c0
Fish Creek 12392815	Cocolalla Creek	Lat 48°06', long 116°38', in SE¼NW¼ sec.19, T.55 N., R.2 W., Bonner County, at county road crossing and 0.5 mi above mouth.	-	-	3-31-77	a4
					4- 5-77	a4
					4-19-77	a4
					5- 6-77	a3
					5-16-77	a2
Cocolalla Creek 12392820	Pend Oreille River	NE¼NW¼ sec.19, T.55 N., R.2 W., Bonner County, just below railroad bridge at Cocolalla.	-	-	6-29-77	c1.09
					8-18-77	c .28
					9- 1-77	c .96
					7-26-77	c .90
Cocolalla Creek 12392825	Pend Oreille River	NW¼NW¼ sec.28, T.56 N., R.3 W., Bonner County, at road crossing and 5 mi northwest of Westmond.	-	-	6-29-77	c2.13
					7-26-77	c1.10
					8-17-77	c .50
					9- 1-77	c .41
Hoodoo Creek 12392830	Pend Oreille River	SW¼NW¼ sec.6, T.55 N., R.3 W., Bonner County, at highway bridge 7.0 mi southeast of Priest River.	-	-	6-29-77	c6.75
					7-26-77	c3.91
					8-17-77	c1.97
					9- 1-77	c4.32
Riley Creek 12392835	Pend Oreille River	SW¼NW¼ sec.30, T.56 N., R.3 W., Bonner County, at State Highway 2 crossing 0.5 mi west of Laclede.	-	-	6-30-77	c .42
					7-26-77	c .26
					8-23-77	c .11
					9- 9-77	c .04
		Blanchard Creek basin				
Blanchard Creek 12392892	Pend Oreille River	Lat 47°59'32", long 117°04'14", in SE¼NE¼SE¼ sec.23, T.29 N., R.45 E., Willamette meridian, Spokane County, Washington, as confluence with North Fork, 1.3 mi west of Idaho-Washington State line, 5.8 mi southwest of Blanchard.	-	1973-76	6-27-77	c1.98
					7-28-77	c1.44
					8-23-77	c .66
					9-15-77	c1.35
		Pend Oreille River basin--Continued				
Boulder Creek	Hughes Creek	Lat 48°46', long 116°58', SE¼NW¼ sec.14, T.36 N., R.5 W., Bonner County, Kaniksu National Forest, 12.7 mi north of Nordman.	-	-	4-18-77	a2
					4-25-77	a11
					5- 3-77	a19
					5-12-77	a11
					5-24-77	a9
					6- 9-77	a6
					6-22-77	a4
					7-13-77	a2
					9-21-77	a2
Zero Creek	Granite Creek	Lat 48°42', long 116°58', in SW¼NW¼ sec.29, T.62 N., R.5 W., Bonner County, Kaniksu National Forest.	-	-	5-25-77	a7
					6- 9-77	a6
					6-22-77	a5
					7-13-77	a3
					9-21-77	a2
Fedar Creek	Granite Creek	Lat 48°40', long 116°56', in SE¼NW¼ sec.1, T.61 N., R.5 W., Bonner County, Kaniksu National Forest, and 3 mi north of Nordman.	-	-	4-18-77	a5
					4-26-77	a4
					5- 4-77	a4
					5-12-77	a2
					5-24-77	a2
					6- 9-77	a1
					7- 6-77	a1
					7-13-77	a .5
					9-21-77	a .2

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Pend Oreille River basin--Continued				
Indian Creek	Priest Lake	Lat 48°38', long 116°59', in NW¼ sec.16, T. 61 N., R.5 W., Bonner County, Kaniksu National Forest and 4 mi west of Nordman.	-	-	4-13-77	a2
					4-24-77	a3
					5- 2-77	a4
					5-11-77	a2
					5-23-77	a1
					6- 7-77	a1
					6-21-77	a1
					7-14-77	a1
Reeder Creek	Priest Lake	Lat 48°38', long 116°59', in NW¼ sec.16, T. 61 N., R.5 W., Bonner County, Kaniksu National Forest and 2 mi west of Nordman.	-	-	4-13-77	a2
					4-24-77	a2
					5- 2-77	a2
					5-11-77	a1
					5-23-77	a1
					6- 7-77	a1
					6-21-77	a1
					7-14-77	a1
					9-26-77	a1
Indian Creek 12392950	Priest Lake	Lat 48°37'37", long 116°49'14", in NW¼SE¼NW¼ sec.23, T.61 N., R.4 W., Bonner County, Kaniksu National Forest, 1.5 mi upstream from mouth and 11 mi north of Coolin.	20	1948, 1973, 1975-76	6-22-77	c32.5
					7-27-77	c13.8
					8-25-77	c19.4
					9-15-77	c15.3
Mathawig Creek	Kalispell Creek	Lat 48°35', long 117°00', in SW¼ sec.4, T.61 N., R.5 W., Bonner County, Kaniksu National Forest, and 4.5 mi southwest of Nordman.	-	-	4-14-77	a .1
					4-21-77	a .1
					5- 2-77	a .1
					5-11-77	a .1
					5-23-77	a .1
					6- 7-77	a .1
					6-21-77	a .03
					7-12-77	a .02
Lamb Creek	Priest River	NE¼SE¼ sec.36, T.60 N., R.5 W., Bonner County, Kaniksu National Forest, at highway crossing and 1.0 mi northwest of Outlet Bay.	-	-	6-22-77	a4.24
					7-26-77	a2.39
					8-25-77	a3.08
					9-15-77	a2.67
Binarch Creek 12393600	Priest River	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T.59 N., R.5 W., Bonner County, at State Highway 57 and 3 mi west of Coolin.	10.7	1962-71 1973-76	6-22-77	c2.94
					7-27-77	c2.97
					8-25-77	c2.00
					9-15-77	c2.61
Klahowya Creek	Upper West Branch	Lat 48°30'00", 117°03'00", SE¼NW¼ sec.25, T. 35 N., R.45 E., Pend Oreille County, and 7.0 mi west of Outlet Bay.	-	-	4-14-77	a1
					4-21-77	a1
					4-28-77	a1
					5-10-77	a1
					5-18-77	a1
					5-31-77	a1
					6-15-77	a1
					7-12-77	a .30
					7-28-77	a .30
Anderson Creek	Upper West Branch	Lat 48°28'00", 116 58'00", SW¼NW¼ sec.15, T. 59 N., R.5 W., Bonner County, Kaniksu National Forest, and 3.0 mi northwest of Dickensheet Junction.	-	-	4-14-77	a .05
					4-21-77	a .04
					4-28-77	a .03
					5-10-77	a .03
					5-19-77	a .02
					6- 1-77	a .01
					6-15-77	a .03
Upper West Branch	Priest River	NW¼NW¼ sec.35, T.59 N., R.5 W., Bonner County, Kaniksu National Forest, at highway crossing 2.5 mi southwest of Dickensheet Junction.	-	-	6-22-77	c18.6
					7-20-77	c8.39
					8-25-77	c14.4
					9-15-77	c15.7
Millers Creek	Lower West Branch Priest River	Lat 48°20'00", long 117°03'00", SW¼ sec.13, T. 33 N., R.45 E., Pend Oreille County, Kaniksu National Forest, and 12 mi north of Newport, Washington.	-	-	4-13-77	a .1
					4-20-77	a .04
					4-27-77	a .04
					5- 9-77	a .1
					5-17-77	a .03
					5-26-77	a .1
					6-14-77	a .1
Bear Paw Creek	Lower West Branch Priest River	Lat 48°21'00", long 117°03'00", in NW¼ sec.23, T.33 N., R.45 E., Pend Oreille County, Kaniksu National Forest, and 12 mi north of Newport, Washington.	-	-	4-13-77	a8
					4-20-77	a4
					4-27-77	a5
					5- 9-77	a4
					5-17-77	a4
					5-31-77	a4
					6-14-77	a3
Mosquito Creek	Lower West Branch Priest River	Lat 48°20', long 117°03', in NE¼ sec.28, T.33 N., R.45 E., Pend Oreille County, Kaniksu National Forest, and 10.5 mi north of Newport, Washington.	-	-	4-11-77	a .4
					4-20-77	a .3
					4-27-77	a .5
					5- 5-77	a .5
					5-17-77	a .4
					5-26-77	a .5
					6-13-77	a .3
					7- 7-77	a .1

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Pend Oreille River basin--Continued				
Slough Creek	Lower West Branch Priest River	Lat 48°19', long 117°02', in SW¼ sec.31, T. 58 N., R.5 W., Bonner County, Kaniksu National Forest, and 10.5 mi northwest of Priest River.	-	-	4-11-77	a1
					4-19-77	a .2
					4-26-77	a .1
					5- 5-77	.3
					5-16-77	a .2
					5-26-77	a .2
					6-13-77	a .2
					7- 7-77	a .1
Pine Creek	Lower West Branch Priest River	SE¼NW¼ sec.26, T.57 N., R.5 W., Bonner County, Kaniksu National Forest, and 10.5 mi northwest of Priest River.	-	-	6-22-77	c .04
					7-20-77	c0
					8-25-77	c0
					9-15-77	c .02
		Spokane River basin				
Alden Creek	Coeur d'Alene River	Lat 47°57', long 116°06', in NE¼ sec.8, T.53 N., R.3 E., Shoshone County, Coeur d'Alene National Forest and 5.2 mi southeast of Beaver Creek Guard Station.	-	-	6-23-77	a2
					7- 7-77	a2
Calamity Creek	Jordan Creek	Lat 47°56', long 116°07', in NW¼ sec.7, T. 53 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, and 6.0 mi southeast of Beaver Creek Guard Station.	-	-	6-20-77	a2
					6-23-77	a2
					7- 7-77	a2
Big Elk Creek	Tepee Creek	Lat 47°48', long 116°17', in NW¼ sec.1, T. 51 N., R.1 E., Shoshone County, Coeur d'Alene National Forest, and 3.5 mi southwest of Magee Ranger Station.	-	-	4-28-77	a49
					5- 4-77	a34
					5-16-77	a17
					5-24-77	a14
					6- 1-77	a11
					6- 8-77	a14
					6-17-77	a8
					6-24-77	a6
					7- 8-77	a5
					7-22-77	a4
					8- 9-77	a3
					8-29-77	a4
					9-26-77	a6
Tepee Creek	Coeur d'Alene River	Lat 47°48', long 116°17', in NE¼ sec.1, T. 51 N., R.1 E., Shoshone County, Coeur d'Alene National Forest, and 3.5 mi southwest of Magee Ranger Station.	-	-	4-28-77	a32
					5- 4-77	a22
					5-16-77	a12
					5-24-77	a9
					6- 1-77	a7
					6- 8-77	a9
					6-17-77	a6
					6-24-77	a4
					7- 8-77	a3
					7-22-77	a2
					8- 9-77	a1
					8-29-77	a4
					9-26-77	a4
Independence Creek	Tepee Creek	Lat 47°48', long 116°13', in SE¼ sec.4, T. 57 N., R.2 E., Shoshone County, Coeur d'Alene National Forest and 3.0 mi northeast of Magee Ranger Station.	-	-	4-14-77	a112
					4-26-77	a245
					5- 4-77	a109
					5-11-77	a72
					5-24-77	a47
					6- 1-77	a37
					6- 8-77	a37
					6-17-77	a25
					6-24-77	a20
					7-18-77	a16
					8- 9-77	a9
					8-29-77	a15
					9-26-77	a16
Cinnamon Creek	Coeur d'Alene River	Lat 47°52', long 116°06', in NW¼ sec.8, T. 52 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, and 7.0 mi northeast of Magee Ranger Station.	-	-	7-19-77	a3
Flat Creek	Coeur d'Alene River	Lat 47°48', long 116°04', in NW¼NW¼ sec.34, T.52 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, and 7 mi northwest of Shoshone Creek Guard Station.	-	-	4-20-77	a36
					5-12-77	a28
					6- 8-77	a23
					6- 9-77	a17
					6-14-77	a15
					6- 6-77	a19
					6-21-77	a13
					6-28-77	a12
					7-18-77	a12
					8- 9-77	a8
					8-30-77	a7

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Spokane River basin—Continued				
Teddy Creek	Coeur d'Alene River	Lat 47°47', long 116°03', in NE¼ sec.10, T. 51 N., R.3 E., Shoshone County, Coeur d' Alene National Forest, and 0.1 mi upstream from mouth, and 9 mi northwest of Prichard.	–	–	6-21-77	a1
					7-19-77	a1
					8-19-77	a .4
Venus Creek	Coeur d'Alene River	Lat 47°44', long 116°00', in SW¼ sec.30, T. 51 N., R.4 E., Shoshone County, Coeur d' Alene National Forest, and 2.5 mi northwest of Shoshone Creek Guard Station.	–	–	4-12-77	a2
					4-25-77	a .4
					5-11-77	a .2
					6-14-77	a .1
					6-21-77	a .04
					6-28-77	a .03
					7- 7-77	a .02
					7-18-77	a .03
					8-30-77	a .03
Sentinel Creek	Shoshone Creek	Lat 47°52', long 116°00', in NE¼ sec.18, T. 52 N., R.4 E., Shoshone County, Coeur d' Alene National Forest.	–	–	5- 4-77	a20.0
					5-10-77	a13.0
					5-16-77	a9.0
					6- 7-77	a3.0
					6-13-77	a4.0
					6-20-77	a3.0
					6-30-77	a2.0
					7- 7-77	a2.0
					7-18-77	a2.0
					8- 8-77	a1.0
					8-29-77	a2.0
Cabin Creek	Shoshone Creek	Lat 47°49', long 115°57', in NW¼ sec.33, T. 52 N., R.4 E., Shoshone County, Coeur d' Alene National Forest.	–	–	5-16-77	a7.0
					6- 7-77	a2.0
					6-20-77	a3.0
					6-30-77	a2.0
					7- 7-77	a2.0
					7-18-77	a2.0
					8- 8-77	a1.0
					8-29-77	a1.0
Falls Creek	Shoshone Creek	Lat 47°47', long 115°57', in NE¼ sec.9, T. 51 N., R.4 E., Shoshone County, Coeur d' Alene National Forest.	–	–	6-20-77	a17.0
					6-30-77	a15.0
					7- 7-77	a14.0
					7-21-77	a9.0
					8- 8-77	a10.0
					8-29-77	a10.0
Offset Gulch	Shoshone Creek	Lat 47°47', long 115°58', in NE¼ sec.8, T. 51 N., R.4 E., Shoshone County, Coeur d' Alene National Forest.	–	–	6-30-77	a .3
					7-21-77	a .2
					8- 8-77	a .1
					8-29-77	a .1
Shoshone Creek 12411200	Coeur d'Alene River	Lat 47°42', long 115°57', in SE¼ sec.5, T. 50 N., R.4 E., Shoshone County, Coeur d' Alene National Forest at Shoshone Creek Guard Station.	–	–	10-13-77	27.0
					6- 8-77	a59
					6-21-77	a61
					6-22-77	c58
					6-28-77	a52
					7-19-77	a39
					8- 8-77	a26
					8-29-77	a37
East Fork Lost Creek	Lost Creek	Lat 47°43', long 115°56', in NE¼ sec.3, T. 50 N., R.4 W., Shoshone County, Coeur d' Alene National Forest and 1.5 mi east of Shoshone Creek Guard Station.	–	–	7- 5-77	a6
					7-21-77	a2
					8- 9-77	a4
					9- 1-77	a3
Lost Creek	Coeur d'Alene River	Lat 47°42', long 115°57', in SE¼SE¼ sec.4, T.50 N., R.4 E., Shoshone County, Coeur d' Alene National Forest and 1 mi east of Shoshone Creek Guard Station.	–	–	4- 5-77	a35.0
					4-20-77	a38.0
					5-10-77	a50.0
					5-16-77	a34.0
					6- 7-77	a36.0
					6- 9-77	a28.0
					6-14-77	a23.0
Prichard Creek	Coeur d'Alene River	Lat 47°36', long 115°48', in NW¼ sec.14, T. 49 N., R.5 E., Shoshone County, Coeur d' Alene National Forest and 3.5 mi southeast of Murray.	–	–	7- 6-77	a9.0
					7-20-77	a6.0
					8-10-77	a5.0
					8-31-77	a5.0
Granite Creek	Prichard Creek	Lat 47°36', long 115°47', in NW¼ sec.15, T. 49 N., R.5 E., Shoshone County, Coeur d' Alene National Forest and 3.5 mi southeast of Murray.	–	–	6-15-77	a17.0
					6-22-77	a12.0
					7- 6-77	a8.0
					7-20-77	a7.0
					8-10-77	a5.0
					8-31-77	a4.0
Idaho Gulch	Prichard Creek	Lat 47°37', long 115°49', in NE¼ sec.9, T. 49 N., R.5 E., Shoshone County, Coeur d' Alene National Forest and 2 mi southeast of Murray.	–	–	4- 5-77	a2.0
					4-11-77	a9.0
					4-19-77	a6.0
					5- 9-77	a5.0
					6-15-77	a3.0
					6-22-77	a2.0
					7- 6-77	a1.0
					7-20-77	a1.0
					8-10-77	a1.0
					8-31-77	a1.0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin--Continued				
Ophir Gulch	Prichard Creek	Lat 4/ 37', long 115°50', in NW¼ sec.9, T. 49 N., R.5 E., Shoshone County, Coeur d' Alene National Forest and 1.5 mi southeast of Murray.	-	-	4-19-77	a1.0
					4-27-77	a2.0
					5- 3-77	a1.0
					5- 9-77	a1.0
					6- 1-77	a1.0
					6- 7-77	a1.0
					6-15-77	a .4
					6-22-77	a .2
					6-29-77	a .3
					7- 6-77	a .3
					7-20-77	a .3
					8-10-77	a .2
					8-31-77	a .2
East Fork Alder Gulch	Alder Gulch	SE¼ sec.32, T.50 N., R.5 E., Shoshone County, Coeur d'Alene National Forest, at road crossing 0.4 mi north of Murray.	-	-	7-12-77	a0
					8-17-77	a0
					9-11-77	a0
Tiger Gulch	Prichard Creek	Lat 47°38', long 115°52', in NE¼ sec.6, T.49 N., R.5 E., Shoshone County, Coeur d'Alene National Forest, and about 0.25 mi south of Murray.	-	-	7-20-77	a .2
					8-10-77	a .2
					8-31-77	a .1
Eagle Creek	Prichard Creek	Lat 47°39', long 115°55', in SW¼SW¼ sec.26, T.50 N., R.4 E., Shoshone County, Coeur d'Alene National Forest, and about 2 mi east of Prichard.	-	-	4- 5-77	a41.0
					4-19-77	a112
					5-11-77	a140
					6- 1-77	a64.0
					6-15-77	a52.0
					6-22-77	a33.0
					6-29-77	a25.0
					7- 6-77	a21.0
					8-10-77	a11.0
					8-31-77	a11.0
Dudley Creek	Beaver Creek	Lat 47°33', long 115°56' in SE¼ sec.27, T. 49 N., R.4 E., Shoshone County, Coeur d' Alene National Forest and 5 mi north of Silverton.	-	-	7- 5-77	a1
					7-19-77	a2
					8- 9-77	a1
					8-30-77	a1
Beaver Creek	Coeur d'Alene River	Lat 47°34', long 115°56', in SE¼ sec.22, T. 49 N., R.4 E., Shoshone County, Coeur d' Alene National Forest and 5.5 mi north of Silverton.	-	-	4- 6-77	a15
					4-25-77	a46
					5-11-77	a22
					5-13-77	a19
					6- 9-77	a15
					6-16-77	a9
					6-23-77	a6
					6-28-77	a5
					7- 5-77	a4
					7-18-77	a6
					7-28-77	a3
					8- 8-77	a2
					8-30-77	a2
Deer Creek	Beaver Creek	Lat 47°34', long 115°56', in SE¼ sec.24, T. 49 N., R.4 W., Shoshone County, Coeur d' National Forest and 4.5 mi northeast of Osburn.	-	-	4- 6-77	a5
					4-25-77	a9
					5-13-77	a2
					6- 9-77	a2
					6-14-77	a1
					6-23-77	a1
					6-28-77	a1
					7- 5-77	a1
					7-19-77	a1
					8- 8-77	a .4
					8-30-77	a .3
Pony Gulch	Beaver Creek	Lat 47°35', long 115°56', in NE¼ sec.22, T. 49 N., R.4 E., Shoshone County, Coeur d' Alene National Forest and 6 mi north of Silverton.	-	-	6-16-77	a1
					6-22-77	a1
					6-30-77	a1
					7-20-77	a1
					8- 9-77	a .4
					9- 1-77	a1
Potosi Gulch	Beaver Creek	Lat 47°35', long 115°56', in SE¼ sec.10, T. 49 N., R.4 E., Shoshone County, Coeur d' Alene National Forest at mouth, and 3.9 mi southeast of Prichard.	-	-	6-16-77	a1
					6-22-77	a1
					6-30-77	a .3
					7- 6-77	a .4
					7-20-77	a .4
					8-10-77	a .2
					8-31-77	a .3
Coeur d'Alene River (near Prichard) 12412000	Spokane River	Lat 47°38'30", long 115°59'00", in Lot 7, sec.32, T.50 N., R.4 E., at site of former gaging station, 0.2 mi downstream from Beaver Creek, 1.8 mi southwest of Prichard and at mile 190.3.	583	1944-1953‡ 1956	8-17-77	c111

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin--Continued				
Coal Creek	Coeur d'Alene River	Lat 47°38', long 116°08', in SE¼ sec.30, T. 50 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, and 7 mi north of Kellogg.	-	-	5-12-77	a9
					6- 6-77	a5
					6-29-77	a2
					7- 6-77	a2
					7-18-77	a2
					8-29-77	a2
Timber Creek	Steamboat Creek	Lat 47°43', long 116°14', in SE¼ sec.32, T. 51 N., R.2 E., Shoshone County, Coeur d'Alene National Forest, and 13 mi north of Pinehurst.	-	-	4-12-77	a1
					4-18-77	a .4
					5- 2-77	a .1
					5-12-77	a .2
					6- 6-77	a .1
					6-15-77	a .1
					6-23-77	a .03
					6-27-77	a .03
					7-19-77	a .02
Steamboat Creek	Coeur d'Alene River	Lat 47°39', long 116°09', in NE¼ sec.14, T. 50 N., R.2 E., Shoshone County, Coeur d'Alene National Forest, and 10 mi north of Kellogg.	-	-	5- 2-77	a68
					5-11-77	a47
					5-12-77	a39
					6- 6-77	a21
					6-15-77	a32
					6-23-77	a26
					6-27-77	a15
					7-19-77	a20
					8-30-77	a18
Honey Creek	North Fork Coeur d'Alene River	Lat 47°54', long 116°29', in NE¼ sec.32, T. 53 N., R.1 W., Kootenai County, Coeur d'Alene National Forest, and 9 mi southwest of Lakeview.	-	-	4-27-77	a8
					6-29-77	a .4
Sob Creek	North Fork Coeur d'Alene River	Lat 47°53', long 116°29', in NE¼ sec.5, T. 52 N., R.1 W., Kootenai County, Coeur d'Alene National Forest, and 6.5 mi southeast of Bayview.	-	-	4-27-77	a4
					6-29-77	a1
Tom Lavin Creek	North Fork Coeur d'Alene River	Lat 47°51', long 116°30', in NW¼ sec.17, T. 52 N., R.1 W., Kootenai County, Coeur d'Alene National Forest, and 9 mi southwest of Bayview.	-	-	4-25-77	a8
					6-29-77	a2
Lone Cabin Creek	Burnt Cabin Creek	Lat 47°45', long 116°31', in SW¼ sec.18, T. 51 N., R.1 W., Kootenai County, Coeur d'Alene National Forest, and 12 mi east of Hayden Lake.	-	-	4-27-77	a12
					6- 9-77	a1
Deception Creek	North Fork Coeur d'Alene River	Lat 47°44', long 116°28', in SW¼ sec.2, T. 51 N., R.1 W., Kootenai County, Coeur d'Alene National Forest, and 13 mi northeast of Coeur d'Alene.	-	-	4- 6-77	a14
					4-19-77	a18
					5- 3-77	a18
					5-10-77	a11
					5-19-77	a7
					5-26-77	a7
					6- 6-77	a7
					6-16-77	a5
					6-23-77	a3
					7-18-77	a3
					8- 8-77	a1
					8-30-77	a1
Sands Creek	Deception Creek	Lat 47°43', long 116°28', in NW¼ sec.33, T. 51 N., R.1 W., Kootenai County, Coeur d'Alene National Forest, and 14 mi northwest of Coeur d'Alene.	-	-	4-28-77	a4
					5- 5-77	a3
					5-13-77	a1
					5-20-77	a1
					5-31-77	a1
					6- 6-77	a1
					6-16-77	a1
					7- 8-77	a .3
					7-19-77	a .2
					8- 8-77	a .2
					8-30-77	a .2
Lavin Creek	Leiberg Creek	Lat 47°45', long 116°21', in SW¼ sec.21, T. 51 N., R.1 E., Kootenai County, Coeur d'Alene National Forest, and 7 mi southwest of Magee Ranger Station.	-	-	4- 6-77	a9
					4-19-77	a4
					5- 3-77	a3
					5-10-77	a2
					5-19-77	a2
					5-26-77	a1
					6- 6-77	a2
					6-16-77	a2
					6-23-77	a2
					7-18-77	a1
					8- 8-77	a1
					8-29-77	a1

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin--Continued				
Tie Creek	Leiberg Creek	Lat 47°45', long 116°21', in SE¼ sec.29, T. 51 N., R.1 E., Kootenai County, Coeur d' Alene National Forest, and 8 mi southwest of Magee Ranger Station.	-	-	4- 6-77	a6
					4-19-77	a3
					5- 3-77	a1
					5-10-77	a1
					5-19-77	a1
					5-26-77	a1
					6- 6-77	a1
					6-16-77	a1
					6-23-77	a1
					7- 8-77	a .4
					8-18-77	a .3
					8-30-77	a .3
Leiberg Creek	North Fork Coeur d'Alene River	Lat 47°45', long 116°22', in SE¼ sec.31, T. 51 N., R.1 E., Kootenai County, Coeur d' Alene National Forest, and 9 mi southwest of Magee Ranger Station.	-	-	4- 6-77	a49
					4-19-77	a26
					5- 3-77	a18
					5-10-77	a17
					5-19-77	a13
					5-26-77	a12
					6- 6-77	a10
					6-16-77	a9
					6-23-77	a7
					7- 8-77	a5
					7-22-77	a4
					8- 8-77	a4
					8-30-77	a4
Copper Creek	North Fork Coeur d'Alene River	Lat 47°39', long 116°24', SW¼ sec.30, T. 50 N., R.1 E., Kootenai County, Coeur d' Alene National Forest, and 7 mi north-west of Enaville.	-	-	4-15-77	a51
					4-21-77	a32
					5- 5-77	a23
					5-16-77	a18
					5-20-77	a16
					5-31-77	a17
					6- 9-77	a14
Gimlet Creek	North Fork Coeur d'Alene River	Lat 47°39', long 116°22', in NE¼ sec.31, T. 50 N., R.1 E., Kootenai County, Coeur d' Alene National Forest, and 6 mi northwest of Enaville.	-	-	4-15-77	a9
					4-21-77	a6
					5- 5-77	a3
					5-20-77	a2
					5-31-77	a4
					6- 9-77	a2
					6-21-77	a1
					7- 1-77	a .4
					7-19-77	a .2
					8-10-77	a .05
North Fork Coeur d'Alene River 12412600	Coeur d'Alene River	Lat 47°36'39", long 116°14'22", in SW¼NW¼ sec.8, T.49 N., R.2 E., Shoshone County, 150 ft upstream from mouth and 3 mi north of Enaville.	-	1914-1934, 1939,1940, 1973-76	10-12-76	40.2
South Fork Coeur d'Alene River 12413050	Coeur d'Alene River	NW¼SW¼ sec.34, T.48 N. R.5 E., Shoshone County, at road crossing in Mullan.			8-17-77	c14.1
					9-11-77	c15.3
Boulder Creek 12413100	South Fork Coeur d'Alene River	Lat 47°28'08", long 115°47'40", in NE¼SE¼ NE¼ sec.34, T.48 N., R.5 E., Shoshone County, at U.S. Highway I-90 crossing in Mullan.	3.13	1961-71, 1973-76	10-13-76	.89
					6-14-77	c8.94
					7-12-77	c2.24
					8-17-77	c .32
					9-11-77	c .69
Mill Creek 12413102	South Fork Coeur d'Alene River	SW¼SE¼ sec.27, T.48 N., R.5 E., Shoshone County, at road crossing 1 mi northeast of Mullan.	-	-	7-13-77	c2.24
					8-17-77	c .66
					9-11-77	c .76
Canyon Creek 12413118	South Fork Coeur d'Alene River	NE¼SW¼ sec.10, T.48 N., R.5 E., Shoshone County, alongside road at Burke.	-	-	7-13-77	c8.46
					8-17-77	c3.26
					9-11-77	c4.14
Canyon Creek 12413120	South Fork Coeur d'Alene River	Lat 47°30'30", long 115°51'56", in SW¼NE¼ sec. 18, T.48 N., R.5 E., 0.1 mi upstream from Bell Gulch 0.1 mi northwest of Gem, and 3.6 mi upstream from mouth.	18.1	1964,1973, 1975-76	10-13-76	9.68
					6-14-77	c44.8
					7-13-77	c17.4
					8-17-77	c11.2
					9-11-77	c9.51
Experimental Gulch 12413136	Placer Creek	SE¼SW¼ sec.3, T.47 N., R.4 E., Shoshone County, 2 mi south of Wallace.	-	-	7-13-77	c0
					8-15-77	c0
					9-11-77	c0
Cranky Gulch 12413137	Placer Creek	SE¼SW¼ sec.34, T.47 N., R.4 E., Shoshone County, 2 mi south of Wallace.	-	-	7-13-77	c0
					8-15-77	c0
					9-11-77	c0
West Fork Placer Creek 12413138	Placer Creek	SW¼SW¼ sec.34, T.48 N., R.4 E., Shoshone County, 1 mi south of Wallace.	-	-	7-13-77	c .23
					8-16-77	c1.03
					9-11-77	c .97

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin--Continued				
Revenue Creek 12413151	South Fork Coeur d'Alene River	NW¼NE¼ sec.21, T.48 N., R.4 E., Shoshone County, 0.7 mi north of Silverton.	-	-	7-13-77	c .52
					8-16-77	c .20
					9-10-77	c .25
Shields Gulch 12413165	South Fork Coeur d'Alene River	Lat 47°28'55", long 115°59'40", in NW¼SW¼NE¼ sec.30, T.48 N., R.4 E., Shoshone County, about 2 mi southeast of Osburn.	.68	1971-73	6-14-77	c 1.64
					7-12-77	c 2.24
					8-17-77	c .33
					9-10-77	c .38
McFarren Gulch 12413170	South Fork Coeur d'Alene River	Lat 47°29'20", long 116°00'56", in NW¼SW¼SE¼ sec.24, T.48 N., R.3 E., Shoshone County, about 1.2 mi south-southwest of Osburn.	1.25	1971-73	10-13-76	0
					6-14-77	c 1.64
					7-12-77	c 2.24
					8-17-77	c .33
					9-10-77	c .38
Spring Gulch 12413176	South Fork Coeur d'Alene River	NW¼SW¼ sec.11, T.48 N., R.3 E., Shoshone County, 300' upstream from I-90.	-	-	7-12-77	c .02
					8-16-77	c 0
					9-10-77	c 0
Big Creek 12413180	South Fork Coeur d'Alene River	Lat 47°29'07", long 116°03'46", in NE¼NE¼NW¼ sec.27, T.48 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, 3.5 mi southeast of Kellogg.	20.9	1970-1974‡	6-15-77	c 25.4
					7-12-77	c 12.4
					8-16-77	c 8.34
					9-10-77	c 8.22
West Fork Big Creek 12413180	South Fork Coeur d'Alene River	Lat 47°29'25", long 116°04'46", in SE¼NE¼SE¼ sec.21, T. 48 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, and 3.5 mi southeast of Kellogg.	5.6	1970-73	10-13-76	c .007
					6-14-77	c 1.42
					7-12-77	c 1.34
					8- 9-77	c .07
					9-10-77	c .05
Montgomery Creek 12413200	South Fork Coeur d'Alene River	Lat 47°33'10", long 116°04'17", in SE¼NE¼ sec.33, T.49 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, 2.5 mi northeast of Kellogg.	4.53	1962-71, 1973-76	10-14-77	c 0
					6-14-77	c 2.17
					7-12-77	c .42
					9-10-77	c .30
East Fork Silver Creek 12413350	South Fork Coeur d'Alene River	SW¼NW¼ sec.10, T.48 N., R.2 E., Shoshone County, at road crossing about 1.5 mi southwest of Smelterville.	-	-	7-12-77	c .02
					8-19-77	ce.015
					9-10-77	ce.02
West Fork Pine Creek	South Fork Coeur d'Alene River	Lat 47°25'30", long 116°17'50", in NE¼NW¼ sec.14, T.47 N., R.1 E., Shoshone County, Bureau of Land Management land, 200 ft south of BLM road, 1.0 mi upstream from middle fork, 8.5 mi southwest of Pinehurst, and at mile 9.5.	10.8	1966-71‡, 1974-75	4- 8-77	a63
					4-22-77	a33
					5- 6-77	a63
					5-17-77	a35
					5-23-77	a36
					6- 2-77	a27
					6-10-77	a22
					6-20-77	a12
					6-27-77	a10
					7-21-77	a7
					8-11-77	a5
					9- 1-77	a4
Middle Fork Pine Creek	West Fork Pine Creek	Lat 47°25', long 116°17', NW¼ sec.24, T.47 N., R.1 E., Shoshone County, Coeur d'Alene National Forest, 9 mi southwest of Pinehurst.	-	-	4- 8-77	a23
					4-20-77	a8
					5- 6-77	a13
					5-17-77	a9
					5-23-77	a6
					6- 2-77	a4
					6-10-77	a3
					6-20-77	a2
					6-27-77	a2
					7-20-77	a1
					8-11-77	a1
					8-31-77	a1
East Fork Pine Creek	Pine Creek	Lat 47°29', long 116°13', in SW¼ sec.28, T. 48 N., R.2 E., Shoshone County, Coeur d'Alene National Forest, 3.5 mi south of Pinehurst.	-	-	6- 3-77	a16
					6-14-77	a18
					7-20-77	a8
					8-31-77	a8
Pine Creek 12413450	South Fork Coeur d'Alene River	NE¼SE¼, sec.32, T.49 N., R.2 E., Shoshone County, 0.5 mi northeast of Pinehurst and just above the mouth.	-	-	6-14-77	c53.4
					7-12-77	c23.5
					8- 9-77	c11.1
					9- 1-77	c9.84
South Fork Coeur d'Alene River 12413490	Coeur d'Alene River	Lat 47°33'35", long 116°15'03", in SW¼SE¼ sec.30, T.49 N., R.1 E., Shoshone County, at highway bridge.	-	1972-76	10-19-76	125
					11-16-76	122
					1-11-77	94.2
					2-15-77	135
					4-12-77	484
					8- 2-77	126
					9-20-77	114
Coeur d'Alene River 12413600	Spokane River	Lat 47°32'52", long 116°20'00", in NE¼SE¼ sec.33, T.49 N., R.1 E., Kootenai County, at U.S. Highway 10 bridge crossing at Cataldo.	-	1972-76	10-18-76	349
					1-10-77	283
					4-11-77	3440

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin--Continued				
Latour Creek	Coeur d'Alene River	Lat 47°28', long 116°26', in NW¼ sec.11, T. 47 N., R.1 W., Kootenai County, Coeur d'Alene National Forest, 7.5 southeast of Cataldo.	-	-	4- 7-77	a72
					4-20-77	a63
					4-29-77	a126
					5- 6-77	a96
					5-12-77	a90
					5-23-77	a77
					5-27-77	a57
					6- 3-77	a62
					6-14-77	a37
					6-20-77	a30
					6-27-77	a22
					8-11-77	a8
					9- 1-77	a9
Latour Creek 12413700	Coeur d'Alene River	Lat 47°28'10", long 116°26'15", in NE¼ sec. 34, T.48 N., R.1 W., Kootenai County, at BLM road bridge, 0.4 mi upstream from Baldy Creek at mile 6.5 and 7.8 mi southwest of Cataldo.	24.8	1961-71, 1973-76	10-14-76	5.14
					4-21-77	53.7
Baldy Creek	Latour Creek	Lat 47°28', long 116°22', in NW¼ sec.5, T. 47 N., R.1 E., Kootenai County, Coeur d'Alene National Forest, 6.5 mi south of Cataldo.	-	-	4-29-77	a11
					5- 6-77	a10
					5-12-77	a26
					5-23-77	a8
					5-27-77	a7
					6- 3-77	a6
					6-14-77	a4
					6-20-77	a3
					6-27-77	a2
					7-20-77	a1
					9- 1-77	a1
Fourth of July Creek 12413800	Coeur d'Alene River	Lat 47°34'00", long 116°26'30", in SE¼ sec. 22, T.49 N., R.1 W., Kootenai County, at road crossing on State Highway 3, 2.2 mi upstream from mouth, 3 mi northeast of Rose Lake, and 5.5 mi northwest of Cataldo.	16.5	1959-1973, 1975-1976	10-12-76	.62
					6-13-77	c6.73
					7-12-77	c0
					8- 9-77	c .89
					8-13-77	c0
					9-14-77	c0
Evans Creek 12413850	Coeur d'Alene River	Lat 47°26'05", long 116°34'02", in SE¼SE¼ sec.3, T.47 N., R.2 W., Benewah County, 1.5 mi upstream from mouth.	12.2	1959 1975-1976	10-12-76	1.73
					6-24-77	c4.88
					7-14-77	c2.76
					8-11-77	c1.64
					9-10-77	c1.86
Sherlock Creek	St. Joe River	Lat 47°04', long 115°14', in NE¼ sec.21, T. 43 N., R.10 E., Shoshone County, St. Joe National Forest, and 7 mi east of Red Ives Ranger station.	-	1976	5-11-77	a71
					5-18-77	a52
					5-25-77	a46
					6- 1-77	a39
					6-13-77	a34
					6-22-77	a24
					7- 6-77	a19
					7-19-77	a17
					8- 9-77	a11
					8-31-77	a15
St Joe River	Coeur d'Alene Lake	Lat 47°03', long 115°21', in SE¼ sec.20, T. 43 N., R.9 E., Shoshone County, St. Joe National Forest at Red Ives Ranger station.	-	1975	5-10-77	a813
					5-20-77	a575
					6- 3-77	a544
					6-15-77	a368
					6-24-77	a207
					7- 7-77	a147
					7-20-77	a121
					8-10-77	a89
					9- 1-77	a94
Bad Bear Creek	Beaver Creek	Lat 47°04', long 115°26', in NW¼ sec.22, T. 43 N., R.8 E., Shoshone County, St. Joe National Forest, and 4 mi east of Red Ives Ranger station.	-	1976	5-27-77	a17
					6- 2-77	a15
					6-14-77	a10
					6-23-77	a6
					7- 5-77	a5
					8-10-77	a2
					8-31-77	a3
Beaver Creek	St. Joe River	Lat 47°05', long 115°21', in SE¼ sec.7, T. 43 N., R.9 E., Shoshone County, St. Joe National Forest, and 1.5 mi north of Red Ives Ranger station.	-	-	5-12-77	a62
					5-19-77	a50
					5-25-77	a43
					6- 3-77	a29
					6-15-77	a19
					6-24-77	a12
					7- 5-77	a9
					7-20-77	a6
					8-10-77	a4
					8-30-77	a7

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin--Continued				
Indian Creek	St. Joe River	Lat 47°05', long 115°21', in SW¼ sec.5, T. 43 N., R.9 E., Shoshone County, St. Joe National Forest, and 2.5 mi north of Red Ives Ranger station.	-	-	5-12-77	a13
					5-19-77	a11
					5-25-77	a9
					6- 2-77	a10
					6-14-77	a8
					6-23-77	a5
					7- 5-77	a5
					8-10-77	a3
					8-30-77	a3
Simons Creek	St. Joe River	Lat 47°08', long 115°24', in SE¼ sec.24, T. 44 N., R.8 E., Shoshone County, St. Joe National Forest, and 5.5 mi northwest of Red Ives Ranger station.	-	-	5-20-77	a168
					5-27-77	a127
					6- 2-77	a130
					6-14-77	a91
					6-23-77	a59
					7- 5-77	a44
					7-20-77	a16
					8-10-77	a23
					8-31-77	a27
Float Creek	St. Joe River	Lat 47°14', long 115°22', in NW¼ sec.19, T. 45 N., R.9 E., Shoshone County, St. Joe National Forest, and 12 mi north of Red Ives Ranger station.	-	-	5-12-77	a10
					5-19-77	a7
					5-26-77	a6
					6- 2-77	a5
					6-14-77	a4
					6-23-77	a2
					7- 5-77	a2
					8-10-77	a1
					8-31-77	a1
West Fork Bluff Creek	Bluff Creek	Lat 47°10', long 115°31', in SE¼ sec.12, T. 44 N., R. 7 E., Shoshone County, St. Joe National Forest, and 14 mi southeast of Avery.	-	1976	5-11-77	a71
					5-18-77	a52
					5-25-77	a46
					6- 1-77	a39
					6-13-77	a34
					6-22-77	a24
					7- 6-77	a19
					7-19-77	a17
					8- 9-77	a11
					8-31-77	a15
East Fork Bluff Creek	Bluff Creek	Lat 47°10', long 115°30', in NW¼ sec.8, T. 44 N., R.8 E., Shoshone County, St. Joe National Forest, and 14.5 mi southeast of Avery.	-	1976	5-11-77	a66
					5-18-77	a54
					5-25-77	a50
					6- 1-77	a41
					6-13-77	a18
					6-22-77	a17
					7- 6-77	a10
					8- 9-77	a6
					8-31-77	a9
Entente Creek	Quartz Creek	Lat 47°14', long 115°29', in NW¼ sec.19, T. 45 N., R.8 E., Shoshone County, St. Joe National Forest, and 14.5 mi east of Avery.	-	1974-76	5-11-77	a54
					5-18-77	a39
					5-26-77	a31
					6- 1-77	a29
					6-13-77	a24
					6-22-77	a14
					7- 6-77	a8
					7-19-77	a7
					8- 9-77	a4
					8-30-77	a5
Quartz Creek	St. Joe River	Lat 47°12', long 115°31', in NW¼ sec.36, T. 17 N., R.7 E., Shoshone County, St. Joe National Forest, and 13.5 southeast of Avery.	-	1974-76	5-11-77	a115
					5-18-77	a101
					5-26-77	a73
					6-1-77	a73
					6-13-77	a59
					6-22-77	a40
					7- 6-77	a26
					7-19-77	a21
					8- 9-77	a15
					8-30-77	a16
Prospector Creek	St. Joe River	Lat 47°13', long 115°36', in SE¼ sec.30, T. 45 N., R.7 E., Shoshone County, St. Joe National Forest, and 9 mi east of Avery.	-	1976	5- 3-77	a43
					5-11-77	a24
					5-18-77	a14
					5-27-77	a13
					6-10-77	a11
					6-20-77	a4
					7- 1-77	a2
					7-18-77	a2
					8- 8-77	a1
					8-29-77	a1

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Spokane River basin--Continued				
Prospector Creek	St. Joe River	Lat 47°13', long 115°36', in NW¼NW¼ sec.29, T. 45 N., R.7 E., Shoshone County, St. Joe National Forest, and 9 mi east of Avery.	-	1976	5-11-77	a27
					5-18-77	a18
					5-27-77	a14
					6-10-77	a13
					6-20-77	a5
					7- 1-77	a2
					7-18-77	a2
					8- 8-77	a1
					8-29-77	a1
Bluebird Creek	Bird Creek	Lat 47°16', long 115°37', in NW¼NE¼ sec.7, T.45 N., R.7 E., Shoshone County, St. Joe National Forest, and 8.5 mi east of Avery.	-	1976	5- 3-77	a17
					5-12-77	a10
					5-18-77	a7
					5-27-77	a5
					6- 1-77	a5
					6-10-77	a4
					6-20-77	a2
					7- 1-77	a2
					7-18-77	a1
					8-29-77	a1
Skookum Creek	St. Joe River	Lat 47°14', long 115°42', in SW¼ sec.21, T. 45 N., R.6 E., Shoshone County, St. Joe National Forest, and 5 mi east of Avery.	-	1975-76	5- 5-77	a64
					5-12-77	a55
					5-19-77	a40
					5-27-77	a35
					6- 1-77	a27
					6-10-77	a20
					6-20-77	a13
					7- 7-77	a8
					8- 8-77	a6
					8-24-77	a8
Siwash Creek	St. Joe River	Lat 47°14', long 115°45', in SW¼ sec.19, T. 45 N., R.6 E., Shoshone County, St. Joe National Forest, and 3 mi southeast of Avery.	-	1975-76	5- 3-77	a20
					5-12-77	a12
					5-25-77	a13
					6- 1-77	a10
					6-10-77	a8
					6-20-77	a6
					6-30-77	a4
					8- 8-77	a2
					8-29-77	a3
Rye Creek	North Fork Coeur d'Alene River	Lat 47°20', long 115°45', in NW¼ sec.18, T. 46 N., R.6 E., Shoshone County, St. Joe National Forest, and 6 mi northeast of Avery.	-	1976	4-29-77	a6
					5-13-77	a4
					5-25-77	a3
					6- 2-77	a2
					6- 7-77	a2
					6-21-77	a1
					6-30-77	a1
					7-21-77	a1
					8- 9-77	a1
North Fork St. Joe River 12413950	St. Joe River	Lat 47°15'08", long 115°49'47", in NW¼NW¼ NW¼ sec.14, T.45 N., R.5 E., Shoshone County, St. Joe National Forest, 300 ft upstream from County road bridge, 600 ft upstream from mouth, and 0.2 mi east of Avery.	111	1974-76	10-13-76	51.6
					6-23-77	c138
					7-13-77	c80.4
					8-11-77	c51.2
Avery Creek	St. Joe River	Lat 47°15'17", long 115°48'28", in SW¼SW¼ SE¼, sec.10, T.45 N., R.5 E., Shoshone County, 2000 ft above mouth at Avery.	0.91		8- 9-77	0.21
Kelley Creek	St. Joe River	Lat 47°15', long 115°48', in SE¼ sec.15, T.45 N., R.5 E., Shoshone County, St. Joe National Forest, and 0.3 mi south of Avery.	-	-	4-29-77	a4
					5- 5-77	a3
					5-11-77	a3
					5-25-77	a2
					6- 2-77	a2
					6- 7-77	a2
					6-21-77	a1
					6-27-77	a .4
					7-21-77	a .3
Flemming Creek	St. Joe River	Lat 47°15', long 115°48', in SE¼ sec.12, T. 45 N., R.4 E., Shoshone County, St. Joe National Forest, and 4 mi west of Avery.	-	1976	5- 5-77	a12
					5-13-77	a9
					5-19-77	a13
					6- 3-77	a8
					6- 7-77	a9
					6-16-77	a5
					6-27-77	a3
					7-18-77	a3
					8- 7-77	a1
					8-28-77	a2

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Spokane River basin--Continued				
St. Joe River	Coeur d'Alene Lake	Lat 47°15', long 115°55', in SW¼SW¼ sec.11, T.45 N., R.4 E., Shoshone County, St. Joe National Forest, at Hoyt Flat Ranger station.	-	1976	4-27-77	a3535
					5-24-77	a2249
					6-10-77	a1502
					7- 8-77	a560
					8- 5-77	a324
Marble Creek 12414215	St. Joe River	SW¼NW¼ sec.13, T.45 N., R.3 E., Shoshone County, St. Joe National Forest, and 9 mi southeast of Calder.	-	-	8-11-77	c61.5
					9- 3-77	c63.0
Black Prince	St. Joe River	Lat 47°16', long 116°03', in NE¼ sec.10, T.45 N., R.3 E., Shoshone County, St. Joe National Forest, and 6 mi east of Calder.	-	-	5-24-77	a28
					6- 2-77	a23
					6- 8-77	a22
					6-15-77	a14
					6-22-77	a13
					6-28-77	a9
					7-19-77	a6
					8- 9-77	a4
					8-31-77	a4
Agatha Creek	St. Joe River	Lat 47°16', long 116°03', in SW¼ sec.3, T. 45 N., R.3 E., Shoshone County, St. Joe National Forest, and 5 mi east of Calder.	-	-	5-24-77	a1
					6- 2-77	a1
					6- 8-77	a1
					6-15-77	a .2
					6-22-77	a .1
					7-19-77	a .1
					8- 9-77	a .02
					8-31-77	a .1
Mud Cabin Creek	St. Joe River	Lat 47°16', long 116°06', in SW¼, sec.3, T. 45 N., R.3 E., Shoshone County, St. Joe National Forest, and 4 mi east of Calder.	-	1976	4-26-77	a2
					5- 4-77	a2
					5-16-77	a1
					5-24-77	a2
					6- 2-77	a2
					6- 8-77	a2
					6-15-77	a1
					6-22-77	a1
					6-28-77	a .4
					7-19-77	a .5
					8-19-77	a .2
					8-31-77	a .4
East Fork Big Creek 12414400	Big Creek	Lat 47°18'07", long 116°08'05", in SW¼NE¼ SE¼ sec.30, T.46 N., R.3 E., Shoshone County, St. Joe National Forest, at road bridge and 3.7 mi northeast of Calder.	15.4	1973-76	4-20-77	42.4
					4-27-77	a95
					5- 6-77	a68
					5-16-77	a43
					5-25-77	a46
					6- 3-77	a34
					6- 8-77	a32
					6-15-77	a25
					6-22-77	a19
					6-28-77	a15
					7-19-77	a12
					8- 9-77	a7
					8-31-77	a8
Big Creek 12414405	St. Joe River	SW¼ sec.5, T.45 N., R.3 E., Shoshone County, St. Joe National Forest, at road crossing 3.5 mi east of Calder.	-	-	8-12-77	c19.5
					9- 3-77	c20.2
Mica Creek	St. Joe River	NW¼ sec.7, T.45 N., R.3 E., Shoshone County, at road crossing, 2.5 mi east of Calder.	-	-	8-11-77	c17.7
					9- 3-77	c8.79
Bear Creek 12414600	St. Joe River	Lat 47°17'00", long 116°11'30", in N½ sec.3, T.45 N., R.2 E., Shoshone County, St. Joe National Forest, at road crossing, 0.2 mi west of Calder and at mile 0.5.	8.27	1959, 1974-76	6-23-77	c3.09
					7-13-77	c1.46
					8-12-77	c .75
					9- 3-77	c1.34
Hughes Creek 12414650	St. Joe River	Lat 47°17'00", long 116°15'40", in NW¼NW¼NW¼ sec.6, T.45 N., R.2 E., Shoshone County, 50 ft upstream from Avery Road culvert, 150 ft upstream from mouth, and 4.0 mi West of Calder.	13.1	1959, 1974-76	6-23-77	c3.50
					7-13-77	c1.70
					8-12-77	c .87
					9- 3-77	c1.79
Trout Creek 12414700	St. Joe River	Lat 47°17'45", long 116°15'10", in SW¼NW¼NE¼ sec.31, T.46 N., R.2 E., Shoshone County, at road crossing 0.2 mi upstream from mouth and 3.4 mi northwest of Calder.	20.3	1959, 1974-76	6-23-77	c14.4
					7-13-77	c7.52
					8-12-77	c4.94
					9- 3-77	c5.26
Falls Creek	St. Joe River	Lat 47°22'00", long 116°18'00", in SE¼ sec.2, T.46 N., R.1 E., Shoshone County, St. Joe National Forest, and 7.5 mi northwest of Calder.	-	-	5-25-77	a23
					6- 3-77	a19
					6- 9-77	a16
					6-15-77	a11
					6-22-77	a8
					6-28-77	a7
					7-19-77	a3
					8-10-77	a3
					8-31-77	a5

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin--Continued				
Bond Creek	St. Joe River	Lat 47°18'30", long 116°20'30", in N½ sec.28, T.46 N., R.1 E., Benewah County, at road crossing 0.5 mi southwest of St. Joe, and 0.8 mi upstream from mouth.	2.43	1959,1973, 1975-76	6-23-77	c5.37
					7-13-77	c3.27
					8-12-77	c1.89
					9- 3-77	c2.81
Street Creek	St. Joe River	Lat 47°20'20", long 116°28'40", in SW¼NW¼NW¼ sec.16, T.46 N., R.1 W., Benewah County, 20 ft downstream from County highway culvert, 0.5 mi upstream from mouth, and 6 mi east of St. Maries.	7.92	1959, 1974-76	6-22-77	c4.70
					7-14-77	c1.99
					8-12-77	c .86
					9- 3-77	c .98
Gold Center Creek	Middle Fork St. Maries River	Lat 47 01',00", long 28',40", in NE¼ sec.6, T.42 N., R.3 E., Shoshone County, and 6 mi east of Clarkia.	-	-	4-29-77	a55
					5- 9-77	a40
					5-20-77	a34
					6- 1-77	a34
					6- 7-77	a33
					6-14-77	a20
					6-17-77	a18
					6-24-77	a15
					7- 5-77	a10
					7-20-77	a8
					8- 5-77	a7
					9- 1-77	a[illegible]
Windy Creek	Gold Center Creek	Lat 47°01', long 116°08', in SE¼ sec.6, T.42 N., R.3 E., Shoshone County, St. Joe National Forest, and 6 mi east of Clarkia.	-	-	4-29-77	a6
					5- 9-77	a9
					5-19-77	a9
					6- 1-77	a7
					6- 7-77	a7
					6-14-77	a4
					6-17-77	a6
					6-24-77	a5
					7- 5-77	a4
					7-20-77	a2
					8- 5-77	a2
					9- 1-77	a2
Gramps Creek	Gold Center Creek	Lat 47°00', long 116°09', in SW¼ sec.1, T.42 N., R.2 E., Shoshone County, St. Joe National Forest, and 4.7 mi southeast of Clarkia.	-	-	4-21-77	a8
					5- 9-77	a11
					5-19-77	a17
					6- 1-77	a10
					6- 7-77	a10
					6-14-77	a5
					6-17-77	a4
					6-24-77	a3
					7- 5-77	a2
					7-20-77	a2
					8- 5-77	a1
					9- 1-77	a1
Two Bit Creek	Middle Fork St. Maries River	Lat 47°01', long 116°10', in NE¼ sec.2, T. 42 N., R.2 E., Shoshone County, St. Joe National Forest, and 3.7 mi east of Clarkia.	-	-	4-29-77	a1
					5- 9-77	a1
					5-23-77	a2
					6- 1-77	a1
					6- 7-77	a1
					7- 5-77	a .1
					7-20-77	a .2
					8- 5-77	a .2
					9- 2-77	a .3
Flewsie Creek	Middle Fork St. Maries River	Lat 47°01', long 116°11', in SE¼ sec.3, T. 42 N., R.2 E., Shoshone County, St. Joe National Forest, and 3 mi east of Clarkia.	-	-	4-21-77	a6
					5- 3-77	a4
					5-11-77	a5
					5-19-77	a8
					6- 1-77	a4
					6- 7-77	a4
					6-14-77	a2
					6-17-77	a2
					6-24-77	a2
					7- 5-77	a1
					7-20-77	a1
					8- 5-77	a1
					9- 1-77	a1
West Fork Merry Creek	Middle Fork St. Maries River	Lat 47°02', long 116°13', in NW¼ sec.33, T. 43 N., R.2 E., Shoshone County, St. Joe National Forest, and 3 mi east of Clarkia.	-	-	4-20-77	a15
					4-29-77	a20
					5-11-77	a18
					5-19-77	a19
					6- 1-77	a13
					6- 7-77	a10
					6-13-77	a10
					6-20-77	a9
					6-27-77	a5
					7-14-77	a6
					8- 5-77	a4
					8-29-77	a6

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin--Continued				
Swamp Creek	East Fork Emerald Creek	Lat 46°59', long 116°25', in NW¼ sec.13, T. 42 N., R.1 W., Latah County, St. Joe National Forest, and 7 mi southwest of Clarkia.	-	-	4-25-77	a1
					5- 5-77	a1
					5-13-77	a1
					5-23-77	a .5
					5-26-77	a1
					6-29-77	a .2
					7-18-77	a .4
					8- 4-77	a .2
					8-30-77	a .3
Staples Creek	St. Maries River	Lat 47°03', long 116°17', in SW¼ sec.24, T. 43 N., R.1 E., Benewah County, St. Joe National Forest, and 3 mi northwest of Clarkia.	-	-	4-29-77	a .3
					5-11-77	a1
					5-18-77	a1
					5-26-77	a1
					6- 6-77	a1
					7- 1-77	a .2
					7-20-77	a .1
					8- 8-77	a .1
					8-29-77	a .2
Little East Fork Emerald Creek	East Fork Emerald Creek	Lat 46°59', long 116°22', in NW¼ sec.17, T. 42 N., R.1 E., Latah County, St. Joe National Forest, and 5 mi southwest of Clarkia.	-	-	4-25-77	a6
					5- 5-77	a4
					5-13-77	a2
					5-23-77	a4
					5-26-77	a4
					6-10-77	a2
					6-16-77	a2
					6-23-77	a1
					6-29-77	a2
					7-18-77	a4
					8- 4-77	a1
					8-30-77	a2
East Fork Emerald Creek	Emerald Creek	Lat 47°01', long 116°20', in NE¼ sec.4, T. 42 N., R.1 E., Latah County, St. Joe National Forest, 3 mi west of Clarkia.	-	-	4-25-77	a27
					5-13-77	a13
					6-10-77	a7
					6-23-77	a4
					7-18-77	a8
					8- 4-77	a2
					8-30-77	a5
Emerald Creek	St. Maries River	SW¼ sec.22, T.43 N., R.1 E., Shoshone County, St. Joe National Forest, at road crossing about 3 mi northwest of Clarkia.	-	-	8-15-77	c3.87
					9- 2-77	c5.86
Adams Creek	St. Maries River	SW¼ sec.5, T.43 N., R.1 E., Benewah County, at highway cossing 1.5 mi southeast of Fernwood.	-	-	8-15-77	c .10
					9- 2-77	c .04
St. Maries River	St. Joe River	SW¼ sec.15, T.44 N., R.1 W., Benewah County, at highway crossing at Santa.	-	-	9- 4-77	c57.6
East Fork Charlie Creek	Charlie Creek	Lat 47°04', long 116°33', in SE¼ sec.14, T. 43 N., R.2 W., Benewah County, St. Joe National Forest, and 4 mi southeast of Emida.	-	-	4-19-77	a5
					5- 3-77	a6
					5-10-77	a5
					5-18-77	a5
					5-26-77	a5
					6- 6-77	a3
					6-13-77	a2
					6-16-77	a2
					6-23-77	a2
					6-29-77	a1
					7-18-77	a2
					8- 4-77	a1
					8-30-77	a2
Preston Creek	Charlie Creek	Lat 47°05', long 116°35', in SW¼ sec.10, T. 43 N., R.2 W., Benewah County, St. Joe National Forest, and 2.5 mi southeast of Emida.	-	-	4-19-77	a1
					5- 3-77	a3
					5-10-77	a2
					5-18-77	a3
					5-26-77	a3
					6- 6-77	a2
					6-13-77	a1
					6-16-77	a1
					6-23-77	a1
					6-29-77	a1
					7-18-77	a1
					8- 4-77	a1
					8-30-77	a1

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin--Continued				
Hume Creek	Charlie Creek	Lat 47°05', long 116°35', in NW¼ sec.9, T. 43 N., R.2 W., Benewah County, St. Joe National Forest, and 2 mi south of Emida.	-	-	4-19-77	a1
					5- 3-77	a1
					5-10-77	a .4
					6-29-77	a .1
					7-18-77	a .3
					8- 4-77	a .04
					8-30-77	a .3
Santa Creek 12414910	St. Maries River	NW¼ sec.33, T.44 N., R.2 W., Benewah County, just downstream from Emida.	-	-	8- 8-77	c0
					9- 2-77	c0
Santa Creek 12414915	St. Maries River	SE¼ sec.17, T.44 N., R.1 W., Benewah County, .4 mi below alternate Highway 95 and Highway 3 junction near Santa.	-	-	6-20-77	c9.96
					8-15-77	c .25
					9- 4-77	c2.24
Thorn Creek 12415050	St. Maries River	Lat 47°17'00", long 116°31'00", in SW¼NE¼NW¼ sec.6, T.45 N., R.1 W., Benewah County, 20 ft downstream from Canyon Creek, 1.5 mi upstream from mouth, and 3.5 mi southeast of St. Maries.	31.6	1959, 1974-76	6-22-77	c3.75
					7-12-77	c .66
					8- 8-77	c .24
					9- 4-77	c1.06
Cherry Creek 12415100	St. Maries River	Lat 47°19'00", long 116°36'47", in SE¼NW¼SE¼ sec.20, T.46 N., R.2 W., Benewah County, 80 ft upstream from State Highway 5 crossing and 2.0 mi west of St. Maries.	7.07	1961-71d, 1972, 1974-76	6-22-77	c0
					7-12-77	c0
					8-15-77	c0
					9-29-77	c0
Benewah Creek 12415150	Coeur d'Alene River	Lat 47°20'10", long 116°40'50", in NE¼SE¼NW¼ sec.14, T.46 N., R.3 W., Benewah County, 200 ft downstream from bridge on State Highway 5 and 6 mi west of St Maries.	52.9	1959, 1974-76	6-22-77	c2.6
					7-12-77	c .89
					8-22-77	c .20
					9-29-77	c3.84
Plummer Creek tributary 12415200	Plummer Creek	Lat 47°20'20", long 116°53'14", in NW¼SE¼SW¼ sec.7, T.46 N., R.4 W., Benewah County, at U.S. Highway 5 crossing, and 0.2 mi north of Plummer.	2.10	1961-72d, 1974-76	6-13-77	c0
					7-12-77	c0
					8-22-77	c0
					9- 9-77	c0
Plummer Creek 12415250	Coeur d'Alene Lake	Lat 47°21'34", long 116°46'53", in SE¼SW¼NW¼ sec.1, T.46 N., R.4 W., Benewah County, near mouth, 0.3 mi upstream from road bridge, and 5.0 mi east of Plummer.	43.4	1959, 1974-76	6-13-77	c2.32
					7-12-77	c .04
					8-22-77	c0
					9-29-77	c2.03
Mica Creek 12415300	Coeur d' Alene Lake	Lat 47°36'00", long 116°53'00", in S½ sec.8, T.49 N., R.4 W., Kootenai County, at road crossing 1 mi upstream from mouth, and 7 mi southwest of Coeur d'Alene.	23.1	1959,1973, 1975-76	6-13-77	c3.98
					7-11-77	c1.00
					8-18-77	c .43
					9-29-77	c3.72
Wolf Lodge Creek	Coeur d'Alene Lake	Lat 47°38', long 116°37', in NE¼ sec. 32, T.50 N., R.2 W., Kootenai County, Coeur d'Alene National Forest, and 8 mi southeast of Coeur d'Alene.	-	-	6- 9-77	a38
					6-20-77	a22
					7- 5-77	a14
					7-11-77	a11
Cedar Creek	Wolf Lodge Creek	Lat 47°38', long 116°36', in NW¼ sec.4, T.49 N., R.2 W., Kootenai County, Coeur d'Alene National Forest, and 9 mi southeast of Coeur d'Alene.	-	-	7- 5-77	a1
					7-11-77	a1
Beauty Creek	Coeur d'Alene Lake	Lat 47°35', long 116°38', in NW¼ sec.19. T. 49 N., R.3 W., Kootenai County, Coeur d' Alene National Forest, and 7 mi southwest of Coeur d' Alene.	-	-	4- 4-77	a3
					4-18-77	a8
					5- 2-77	a7
					5- 9-77	a3
					5-18-77	a3
					5-25-77	a3
					6- 2-77	a3
					6-22-77	a2
					6-30-77	a1
Varnum Creek	Beauty Creek	Lat 47°35', long 116°39', in SE¼ sec.16 T. 49 N., R.2 W., Kootenai County, Coeur d' Alene National Forest, and 6.7 mi northwest of Rose Lake.	-	-	4- 4-77	a1
					4-18-77	a2
					5- 2-77	a2
					5- 9-77	a1
					5-18-77	a .4
					5-25-77	a1
					6- 2-77	a1
					6-15-77	a1
					6-22-77	a .2
					6-30-77	a .2
					7-21-77	a .4
					8-21-77	a .1
					9- 2-77	a .03

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin--Continued				
Beauty Creek	Coeur d'Alene Lake	Lat 47°35', long 116°39', in SW¼ sec.18, T. 49 N., R. 2 W., Kootenai County, Coeur d'Alene National Forest, and 8 mi southeast of Coeur d'Alene.	-	-	4- 4-77	a3
					4-18-77	a6
					5- 2-77	a4
					5- 9-77	a2
					5-18-77	a2
					5-25-77	a2
					6- 2-77	a2
					6-15-77	a2
					6-22-77	a1
					6-30-77	a1
					7-21-77	a .5
					8-12-77	a .1
Beauty Creek	Coeur d'Alene Lake	Lat 47°36', long 116°40', in SE¼ sec.12, T. 49 N., R.3 W., Kootenai County, Coeur d'Alene National Forest, and 7 mi southwest of Coeur d'Alene.	-	-	4- 4-77	a3
					4-18-77	a8
					5- 2-77	a7
					5- 9-77	a3
					5-18-77	a3
					5-25-77	a3
					6- 2-77	a3
					6-15-77	a2
					6-30-77	a1
					7-21-77	a .3
Fernam Creek 12415375	Fernam Lake	SW¼NE¼ sec.10, T.50 N., R.3 W., Kootenai County, alongside County road 3.5 mi east of Coeur d'Alene.	-	-	6-27-77	c .40
					7-16-77	c0
					8-11-77	c0
					9- 1-77	c0
Cougar Creek 12415400	Coeur d'Alene Lake	Lat 47°39'20", long 116°50'30", in NE¼NW¼ sec.28, T.50 N., R.4 W., Kootenai County, at U.S. Highway 95 crossing and 3.2 mi southwest of Coeur d'Alene.	14.8	1959,1973, 1975-76	6-13-77	c2.52
					7-11-77	c .21
					8- 8-77	c0
					9-15-77	c .16
Lewellan Creek 12415970	Spokane River	SW¼SW¼ sec.24, T.53 N., R.3 W., Kootenai County, and 2.5 mi southeast of Athol.	-	-	6-27-77	c .43
					7-14-77	c0
					8-11-77	c0
					9- 1-77	c0
Sage Creek	Spokane River	NW¼SW¼ sec.35, T.53 N., R.3 W., Kootenai County, and 4 mi southeast of Athol.	-	-	6-27-77	c0
					7-14-77	c0
					8-11-77	c0
					9- 1-77	c0
North Fork Hayden Creek	Hayden Creek	Lat 47°50', long 116°39', in NW¼ sec.25, T.52, N., R.3 W., Kootenai County, Coeur d'Alene National Forest, and 5.5 mi northeast of Hayden.	-	-	6-13-77	a3
					6-20-77	a2
					7- 1-77	a1
					7-11-77	a1
Hayden Creek	Hayden Lake	Lat 47°49', long 116°42', in SW¼ sec.27, T.52, N., R.3 W., Kootenai County, Coeur d'Alene National Forest, and 5 mi northeast of Hayden.	-	-	6- 8-77	a9
					6-13-77	a8
					6-20-77	a4
					7- 1-77	a2
					7-11-77	a2
Mokins Creek	Hayden Lake	Lat 47°47', long 116°39', in NW¼ sec.11, T.51 N., R.3 W., Kootenai County, Coeur d'Alene National Forest, and 6 mi east of Hayden.	-	-	6- 8-77	a1
					6-13-77	a1
Yellowbanks Creek	Hayden Lake	Lat 47°46', long 116°40', in SW¼ sec.14, T.51 N., R.3 W., Kootenai County, and 6 mi east of Hayden.	-	-	6- 8-77	a .3
					6-13-77	a .2
Fish Creek 12419100	Twin Lakes	Lat 47°53',08", long 116°57'06", in NW¼SE¼ NW¼ sec.3, T.52 N., R.5 W., Kootenai County, at road crossing, 1.5 mi upstream from Twin Lakes,and 6.0 mi northwest of Rathdrum.	14.2	1959,1973, 1975-76	6-27-77	c3.84
					7-11-77	c3.28
					8-25-77	c3.00
					9-15-77	c3.24
Rathdrum Creek 12419110	Spokane River	SW¼NW¼ sec.17, T.52 N., R.4 W., Kootenai County, at road crossing 2 mi northeast of Rathdrum.	-	-	6-27-77	c7.27
					7-28-77	c4.11
					8-25-77	c2.69
					9-15-77	c4.62
Spring Branch Creek	Rathdrum Creek	SE¼SE¼ sec.25, T.52 N., R.5 W., Kootenai County, and 1 mi northwest of Rathdrum.	-	-	6-27-77	c .18
					7-11-77	c .22
					8-10-77	c .11
					9-15-77	c .21
Hauser Creek 12419120	Spokane River	SE¼SW¼ sec.6, T.51 N., R.5 W., Kootenai County, and 5 mi northwest of Post Falls.	-	-	7-14-77	c0
					8-10-77	c0
					9-15-77	c0
Cable Creek 12419125	Spokane River	Sec.13, T.50 N., R.6 W., Kootenai County, and 3 mi southwest of Post Falls.	-	-	6-30-77	c0
					7-25-77	c0
					8-10-77	c0
					9-15-77	c0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin--Continued				
Hangman Creek 12422950	Latah Creek	Lat 47°11'40", long 117°01'42", in NE¼SW¼ SE¼ sec.36, T.45 N., R.6 W., Benewah County, 0.5 mi east of Idaho-Washington State line, 2.8 mi southeast of Tekoe, Washington, and 6.2 mi west of Tensed.	-	-	8-22-77 9- 9-77	c0 c0
Moctileme Creek 12422955	Little Hangman Creek	Sec.13, T.45 N., R.6 W., Benewah County, and .5 mi east of Willard.	-	-	8-22-77 9- 9-77	c0 c0
Rock Creek 12423675	Latah Creek	Lat 47°26'09", long 117°02'44", in SE¼ SE¼SE¼ sec.36, T.23 N., R.45 E., Spokane County, 0.2 mi west of Idaho-Washington State line, 1.6 mi upstream from Murphy Creek, and 4.4 mi east of Rockford, Washington.	-	1974-76	6-13-77 7-12-77 8-22-77 9- 9-77	c .42 c0 c0 c0
		Salt River basin				
Crow Creek 13025500	Salt River	Lat 42°40'10", long 111°01'2-", in sec.17, T.31 N., R.119 W., Bonneville County, on left bank 1.5 mi downstream from Wyoming-Idaho State Line and 2.5 mi southwest of Fairview.	b114	1946-49‡, 1961-67‡	6- 8-77	a35.6
Stump Creek 13026000	Salt River	Lat 42°47'00", long 111°03'10", in sec.26, T.7 S., R.46 E., on left bank 0.6 mi upstream from Wyoming-Idaho State Line, 0.8 mi downstream from Tygee Creek, and 2.5 mi west of Auburn.	103	1946-49‡	6- 8-77 8-16-77	a30.7 a10.8

These footnotes are for pages 481-502.

‡ Operated as a continuous-record gaging station.
a Measurement by U.S. Forest Service.
b Approximately.
c Measurement by Idaho Department of Water Resources.
d Operated as a crest-stage station.
e Estimated.

See footnotes on p. 520.

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Salt River basin--Continued				
Bear Canyon Creek 13027200	Tincup River	Lat 42°58'38", long 111°11'44", in SW¼ sec. 16, T.5 S., R.45 E., Boise meridian, Caribou County, 0.2 mi upstream from confluence with Tincup River at State Highway 34 and 8 mi west of Freedom.	b3.3	1961-71c, 1973, 1975-77	6- 7-77 7-13-77 9- 1-77 9-20-77	a1.19 a1.38 a .33 .30
		McCoy Creek basin				
McCoy Creek 13029500	Snake River	Lat 43°10'50", long 111°06'55", in SW¼ sec.6, T.3 S., R.46 E., Bonneville County, 1.5 mi upstream from mouth and 5 mi west of Alpine.	108	1917-18‡ 1934‡, 1953-61‡, 1962-71c, 1973, 1975-77	6-23-77 8-17-77 9- 2-77	a23.7 a 6.91 10.6
		Indian Creek basin				
Indian Creek 13030000	Snake River	Lat 43°15'35", long 111°04'00", near center of sec.9, T.2 S., R.46 E., Bonneville County, 0.2 mi downstream from confluence of North and South forks, 3 mi upstream from mouth, and 5.5 mi north of Alpine, Wyo.	36.8	1918‡, 1954-61‡, 1962-71c, 1975-76	6-27-77 8-17-77 9- 2-77	a1.96 0 0
		Elk Creek basin				
Elk Creek 13030500	Snake River	Lat 43°19'25", long 111°06'40", in NW¼ sec. 19, T.1 S., R.46 E., Bonneville County, 2.5 mi upstream from mouth and 11 mi southeast of Irwin.	59.2	1918‡, 1934‡, 1954-61‡, 1962-71, 1975-76	6-27-77 8-17-77 9- 2-77	a34.2 a23.4 21.3
Little Elk Creek 13031000	Snake River	Lat 43°19'00", long 111°09'30", in E½ sec.2, T.1 S., R.45 E., Bonneville County, a short distance upstream from mouth and 5.5 mi northwest of Blowout.	11.4	1917‡, 1918	6-27-77	a19.7
		Bear Creek basin				
Bear Creek 13032000	Snake River	Lat 43°17'00", long 111°13'17", in SE¼SE¼ sec.31, T.1 S., R.45 E., Bonneville County, Caribou National Forest, 0.5 mi downstream from Elk Creek, 0.2 mi upstream from maximum flow line of Palisades Reservoir, and 6.4 mi south of Irwin.	77.1	1917-18‡, 1934-36‡, 1953-71‡, 1973, 1975-76	6-28-77 8-17-77 9- 2-77	a19.9 a14.3 15.4
		Palisades Creek basin				
Palisades Creek 13033500	Snake River	Lat 43°22'32", long 111°14'37", in NW¼ sec. 35, T.1 N., R.44 E., Bonneville County, 1,300 ft upstream from mouth and 3.5 mi southeast of Irwin.	60.8	1917-18‡, 1934-36‡, 1956	6-27-77 8-18-77	a38.1 a35.7
		Fall Creek basin				
Fall Creek 13034000	Snake River	Lat 43°26'28", long 111°22'35", in SE¼ sec.3, T.1 N., R.43 E., Bonneville County, at mouth and 2 mi west of Swan Valley.	77.6	1917-18‡, 1934-45‡, 1936‡	6-27-77	0
		Rainy Creek basin				
Rainy Creek 13034400	Snake River	Lat 43°27'25", long 111°16'10", in SE¼ sec. 33, T.2 N., R.44 E., Bonneville County, 3.5 mi east of Swan Valley.	56.3	1904-19, 1924-34, 1939, 1944-67	6-27-77 8-18-77	a11.2 a12.3
		Pine Creek basin				
Pine Creek 13035500	Snake River	Lat 43°30'30", long 111°21'20", in NE¼ sec. 14, T.2 N., R.43 E., Bonneville County, 3.5 mi upstream from mouth and 4 mi north of Swan Valley.	63.2	1956	6-27-77 8-17-77	a12.2 a1.92
		Snake River basin				
Warm Springs (Buckland) 13036450	Snake River	Lat 43°35'49", long 111°27'43", in SW¼ sec. 12, T.3 N., R.42 E., Bonneville County, 0.5 mi upstream from Burns Creek and 10 mi east of Heise.	-	1933, 1956	6-28-77	a23.7

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Burns Creek basin				
Burns Creek 13036500	Snake River	Lat 43°35'50", long 110°28'25", in SE¼ sec. 11, T.3 N., R.42 E., Bonneville County, 600 ft upstream from mouth and 5.5 mi east of Chokeberry.	21.1	1917, 1934-36‡	6-28-77	a10.0
		Birch Creek basin				
Birch Creek 13037600	Snake River	Lat 43°36'00", long 111°43'10", in SW¼ sec. 11, T.3 N., R.40 E., Bonneville County, 3.5 mi southwest of Heise.	21	1962-73, 1975-77	6-28-77 9- 9-77	a .42 .84
		Lyons Creek basin				
Lyons Creek 13038410	Snake River	Lat 43°40'54", long 111°44'50", in NE¼NE¼ sec.16, T.4 N., R.40 E., Madison County, in flood-control channel and 0.7 mi south of Byone.	-	1904, 1962-63, 1973-74c, 1977c	9- 2-77 9- 9-77	0 a 0
		Henrys Fork basin				
Duck Creek 13038605	Henrys Lake	Lat 44°36'38", long 111°27'33", in SE¼ SE¼ NE¼ sec.23, T.15 N., R.42 E., Fremont County, at road crossing, 2.1 mi upstream from mouth and 5.3 mi southwest of lake.	11.4		6-30-77 8-23-77	a3.23 a3.95
Targhee Creek 13038900	Henrys Lake	Lat 44°38'50", long 111°20'30", in NW¼NE¼ sec.11, T.15 N., R.43 E., Fremont County, at State Highway 87 crossing, 1.5 mi west of State Highway 87 and U.S. Highway 191 junction, and 10.4 mi north of Macks Inn.	20.8	1904,1924, 1929-34, 1962-71c, 1973-76	6-30-77 8-23-77 9- 7-77	a18.6 a6.54 5.76
Meadow Creek Springs 13039900	Henrys Lake	Lat 42°32', long 111°17', in sec.16, T.14 N., R.44 E., Fremont County, about 4 mi northeast of Macks Inn.	-	-	6-30-77 8-24-77	a6.01 a3.65
Henrys Fork 13040000	Snake River	Lat 44°31', long 111°18', in NW¼ sec.29, T. 14 N., R.44 E., Fremont County, 1.5 mi upstream from Big Springs Creek and 2.0 mi northwest of Big Springs.	166	1903,1924, 1932, 1974-75	8-24-77	a87.5
Big Springs 13040500	Henrys Fork	Lat 44°29'52", long 111°15'33", in NE¼ sec.33, T.14 N., R.44 E., Fremont County, 0.2 mi downstream from road bridge at Big Springs.	-	1924-25	7- 7-77	a195
Moose Creek 13040800	Henrys Fork	Lat 44°29'00", long 111°17'00", N½ sec.5, T.13 N., R44 E., Fremont County, at highway bridge 0.5 mi upstream from mouth, and 1.5 mi southwest at Big Springs.	-	1924,1925, 1928	7- 1-77 8-23-77	a35.8 a34.0
Hotel Creek 13041350	Henrys Fork	Lat 44°27'40", long 111°26'42", in NW¼SW¼SE¼ sec.12, T.13 N., R.42 E., Fremont County, at road crossing, 1.1 mi upstream of mouth and 4.4 mi west of Island Park.	14.8	1974-75	7- 7-77	a9.2
Sheridan Creek 13041400	Henrys Fork	Lat 44°28'14", long°111°40'20", in NW¼ sec. 7, T.13 N., R.41 E., Fremont County, at forest road, above diversions, 1 mi northwest of Sheridan Reservoir, and 14 mi east of Kilgore.	-	-	7- 7-77	a37.6
Elk Creek 13042850	Buffalo River	Lat 44°25'48", long 111°21'20", in NW¼NW¼NW¼ sec.26, T.13 N., R.43 E., Fremont County, at road crossing, 0.1 mi upstream from mouth, and 1.0 mi south of Elk Creek Ranch, and 0.9 mi northwest of Island Park.	8.47	1974-75	6-30-77 8-24-77	a17.8 a30.5
Tom's Creek 13042900	Buffalo River	Lat 44°29'04", long 111°21'07", in NE¼SW¼SW¼ sec.26, T.13 N., R.43 E., Fremont County, at road crossing, 0.7 mi upstream from mouth, 0.9 mi east of Island Park ranger station, and 1.0 mi southeast of Island Park.	29.6	1904, 1974-75	8-24-77	a64.4
Buffalo River 13043000	Henrys Fork	Lat 44°25'25", long 111°22'15", in NW¼NE¼SW¼ sec.27, T.13 N., R.43 E., Fremont County, at highway crossing, 0.2 mi north of Island Park ranger station, and 0.1 mi south of Island Park.	59.1	1974-75	6-30-77 8-24-77	a209 a201

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Henrys Fork basin--Continued				
Warm River 13044200	Henrys Fork	Lat 44°12'23", long 111°15'03", in NW¼SW¼SW¼ sec.10, T.10 N., R.44 E., Fremont County, 200 ft upstream from fish hatchery, 1.0 mi east of Gerrit, and 6.2 mi northeast of Warm River.	120	1974-75	6-30-77	a26.8
Warm River 13044300	Henrys Fork	Lat 44°12'02", long 111°15'10", SE¼SE¼SE¼ sec.9, T.10 N., R.44 E., Fremont County, 0.4 mi south of Warm River fish hatchery, 1.0 mi southeast of Gerrit, and 5.8 mi northeast of Warm River.	123	1974-75	6-30-77	a213
Warm River 13044500	Henrys Fork	Lat 44°06'52", long 111°19'26", in SE¼SW¼SE¼ sec.12, T.9 N., R.43 E., Fremont County, 0.2 mi upstream from Robinson Creek, 0.5 mi upstream from mouth, and 0.5 mi northeast of former Warm River railroad station.	145	1903, 1912-15, 1918-32, 1974-75	6-30-77	a232
Robinson Creek 13045500	Warm River	Lat 44°06'57", long 111°19'09", in NE¼NE¼NW¼ sec.13, T.9 N., R.43 E., Fremont County, at State Highway 47 crossing at mouth, 0.2 mi downstream.	125	1974-75	6-30-77	a71.9
Spring Creek 13045855	Henrys Fork	E½ sec.23, T.9 N., R. 42 E., Fremont County, .25 mi below road crossing on Sewer Creek.	-	-	8-24-77	a5.03
Conat Creek 13047750	Falls River	NE¼NE¼ sec.18, T.8 N., R.43 E., Fremont County, at road crossing .25 mi above mouth.	-	-	6-29-77	a9.04
North Fork Squirrel Creek 13047800	Teton River	Lat 44°04', long 111°01', in SE¼ sec.4, T.48 N., R.45 E., Fremont County, on bridge 500 ft downstream from Squirrel Meadow guard station and 6.2 mi south of Belcher River ranger station.	2.4	1961-67‡	6-29-77	a16.3
Moose Creek 13050800	Teton River	Lat 43°33'48", long 111°04'00", in NE¼ sec. 30, T.3 N., R.46 E., Teton County, at old highway bridge, 3.7 mi southeast of Victor.	21.4	1962-71c, 1975-76	6-28-77 8-18-77 9-24-77	a18.8 a27.8 23.4
Game Creek 13051100	Teton River	Lat 43°34'33", long 111°04'12", in NW¼ sec. 19, T.3 N., R.46 E., Teton County, downstream from old highway bridge and 2.5 mi southeast of Victor.	-	1919, 1931	9- 2-77	a1.49
Horse Shoe Creek 13052500	Teton River	Lat 43°44'00", long 111°51'30", in sec.7, T.5 N., R.44 E., Teton County, on left bank at mouth of canyon, 90 ft upstream from bridge on old railroad grade 4 mi upstream from mouth, and 7.5 mi west of Driggs.	11.7	1919,1935, 1937, 1939-45, 1946-52‡, 1953-66	9- 2-77	a1.91
Packsaddle Creek 13053000	Teton River	Lat 43°45'30", long 111°18'30", in sec. 18, T.5 N., R.44 E., Teton County, on left bank 0.9 mi upstream from North Fork and 8.5 miles southwest of Tetonia.	b5.7	1919,1935, 1937, 1939-45, 1946-50‡	6-29-77 8-18-77	a2.61 a .56 a .56
Spring Creek 13053500	North Leigh Creek	Lat 43°50'30", long 111°07'00", in sec.14, T.6 N., R.45 E., Teton County, 110 ft downstream from source of Creek at Spring and 3 mi northwest of Tetonia.	-	1946-50‡	8-19-77	a0
Teton River 13054000	Henrys Fork	Lat 43°51', long 111°15', in sec.15, T.6 N., R.44 E., Teton County, right bank 1.75 mi downstream from highway bridge, 4 mi downstream from Packsaddle Creek, and 6 mi northwest of Tetonia.	471	1930-33‡, 1934-41 1942-50‡	6-29-77 8-18-77	a242 a159
Badger Creek 13054050	Teton River	SE¼SW¼ sec.2, T.6 N., R.45 E., Teton County, just above Rammel Mountain road crossing.	-	-	6-29-77 8-19-77	a13.8 a0
Milk Creek 13054400	Teton River	Lat 43°53'00", long 111°20'40", in NE¼ sec.2, T.6 N., R.43 E., Teton County, at State Highway 33 and 10.5 mi northwest of Tetonia.	17.9	1962-76c	6-28-77 8-19-77 9-19-77	a0 a0 0
Canyon Creek 13054500	Teton River	Lat 43°48'00". long 111°26'00", in NW¼ sec. 6, T.5 N., R.43 E., Madison County, above mouth of Pincock Hot Springs, 0.8 mi downstream from mouth of Warm Creek, and 10.5 mi southeast of Newdale.	b68	1920-25‡, 1932, 1938-39‡, 1973, 1975-76	9-19-77	9.37

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Henrys Fork basin--Continued				
Teton River	Henrys Fork	SE¼NE¼ sec.29, T.7 N., R.41 E., Teton County, just above North Fork and South Fork split.	-	-	5-12-77	411
North Fork Teton River 13055210	Henrys Fork	Lat 43°53'39", long 111°41'50", in NW¼ sec.36, T.7 N., R.40 E., Fremont County, at road crossing 1 mi west of Teton.	-	-	3-31-77 4-15-77 5-11-77 10-18-77	30.4 183 24.6 81.8
North Fork Teton River 13055230	Henrys Fork	Lat 43°53'06", long 111°43'01", in NW¼ sec.35, T.7 N., R.40 E., Madison County, at road crossing 2 mi west of Teton.	-	-	3-30-77 3-31-77 6-10-77 10-18-77	33.0 25.2 147 93.7
North Fork Teton River 13055250	Henrys Fork	Lat 43°53'13", long 111°45'25", in SW¼ sec.33, T.7 N., R.40 E., Madison County, at road crossing, 0.6 northwest of Sugar City.	-	-	3- 8-77 3-30-77 4-11-77 4-13-77 4-14-77 10-19-77	27.6 62.9 203 126 114 80.2
North Fork Teton River 13055270	Henrys Fork	Lat 43°52'57", long 111°46'37", in NW¼NW¼ sec.5, T.6 N., R.40 E., Madison County, at road crossing 0.5 mi northwest of Salem.	-	-	4-11-77 4-15-77 5-10-77 10-19-77	22.9 211 1.65 90.6
North Fork Teton River 13055300	Henrys Fork	Lat 43°53'10", long 111°49'01", in SW¼ sec.36, T.7 N., R.39 E., Madison County, at road crossing, 2 mi northeast of Salem.	-	-	4-11-77 4-14-77 4-15-77 5-10-77 6-11-77 10-19-77	267 136 216 .67 188 94.8
Moody Creek 13055320	Teton River	Lat 43°49'50", long 111°38'10", in NW¼ SW¼ sec.21, T.6 N., R.41 E., Fremont County, 0.4 mi south of Moody and 4 mi southwest of Newdale.	b88	1962-63, 1973, 1975-76	6-28-77 8-19-77 9-24-77	a3.35 a .48 2.44
		Willow Creek basin				
Grays Lake Outlet 13057500	Willow Creek	Lat 43°08'05", long 111°29'40", in NW¼ NE¼ sec.26, T.3 S., R.42 E., Bonneville County, on right bank 200 ft upstream from road crossing, 3.5 mi west of Herman, and 8 mi upstream from Brockman Creek.	137	1916-25, 1966-1970‡	6- 6-77 7-13-77	a .22 a .16
Homer Creek 13057600	Grays Lake Outlet	Lat 43°11'35", long 111°37'20", in NW¼ sec. 2, T.3 S., R.41 E., Bingham County, at road crossing, 11 mi west of Herman, and 12 mi southwest of Bone.	26.4	1963-71c, 1973-76	6- 6-77 7- 8-77 9- 1-77 9-27-77	a .91 a .10 a0 0
		Snake River basin				
Snake River tributary 13061100	Snake River	Lat 43°23'07", long 112°08'47", 0.2 mi west of northeast corner sec.30, T.3 N., R.37 E., Bonneville County, 2.2 mi west of Osgood and 9 mi northwest of Idaho Falls.	7.64	1961-76	7- 8-77 8-26-77 9-23-77	a0 a0 0
Snake River tributary No. 6 13062600	Snake River	Lat 43°31'00", long 112°28'00", in NW¼ NW¼ sec.9, T.2 S., R.34 E., Bonneville County, along U.S. Highway 26 and 4 mi northwest of Moreland.	63.5	1962,1973, 1976	9- 8-77	0
		Blackfoot River basin				
Stewart Canyon 13062638	Diamond Creek	Lat 42°41'32", long 111°13'28", in SW¼ SE¼SE¼ sec.29, T.8 S., R.45 E., Caribou County, Stewart Canyon above tributary #20 at Stewart Flat.	-	-	10-21-76	.94
Stewart Canyon 13062640	Diamond Creek	Lat 42°41'39", long 111°12'00", in NW¼SW¼ SE¼ sec.28, T.8 S., R.45 E., Caribou County, Stewart Canyon near mouth.	-	-	10-21-76	.83
Yellowjacket Creek tributary 13062646	Diamond Creek	Lat 42°46'14", long 111°14'44", in NW¼ NW¼SW¼ sec. 31, T.7 S., R.45 E., Caribou County, tributary to Diamond Creek 15 mi southeast of Wayan.	-	-	10-20-76	.40

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^{2})	Measured previously (water years)	Measurements	
					Date	Discharge (ft^{3}/s)
		Blackfoot River basin--Continued				
Cabin Creek 13062648	Diamond Creek	Lat 42°46'28", long 111°14'15", in SW¼ SE¼NW¼ sec.31, T.7 S., R.45 E.	-	-	10-20-76	.39
Diamond Creek 13062650	Blackfoot River	Lat 42°46'22", long 111°15'01", in SW¼ SW¼NW¼ sec.31, T.7 S., R.45 E., Caribou County, 15.5 mi southeast of Wayan.	-	-	10-20-76	15.08
Kendall Creek 13062654	Diamond Creek	Lat 42°46'43", long 111°17'15", in NW¼ NE¼NW¼ sec.35, T.7 S., R.44 E., 14 mi southeast of Wayan.	-	-	10-20-76	2.3
Timothy Creek 13062660	Diamond Creek	Lat 42°48'38", long 111°15'22", in NW¼SE¼ SE¼ sec.13, T.7 S., R.44 E., 15 mi southeast of Wayan.	-	-	10-20-76	8.6
Lanes Creek 13062680	Blackfoot River	NW¼ sec.28, T.6 S., R.44 E., Caribou County, at road crossing 7 mi southeast of Wayan.	-	-	10-19-76 6- 7-77 7-13-77	3.26 a9.44 a1.21
Sheep Creek 13062683	Lanes Creek	SW¼ sec.29, T.6 S., R.44 E., Caribou County, at road crossing and 7.5 mi southeast of Wayan.	-	-	10-19-76 7-13-77	6.73 a .58
Sheep Creek 13062684	Blackfoot River	Lat 42°51'30", long 111°19'08", in SW¼ NE¼NE¼ sec.32, T.6 S., R.44 E., Caribou County, 8.5 mi southeast of Wayan.	-	-	10-19-76	4.31
Big Springs 13062686	Diamond Creek	Lat 42°48'36", long 111°17'50", in SE¼ sec.15, T.7 S., R.44 E., Caribou County, 1 mi upstream from Blackfoot River.	-	-	10-20-76 6- 7-77 7-13-77	5.9 a4.45 a3.54
Mill Creek 13062688	Diamond Creek	Lat 42°48'32", long 111°18'32", in NW¼ SW¼SW¼ sec.15, T.7 S., R.44 E., Caribou County, 11.5 mi southeast of Wayan above diversions.	-	-	10-19-76	2.19
Blackfoot River 13062690	Snake River	Lat 42°49'26", long 111°19'23", in NW¼ SE¼SW¼ sec.9, T.7 S., R.44 E., Caribou County, 10.5 mi south of Wayan at bridge above Angus Creek.	-	-	10-20-76	57.9
Angus Creek 13062700	Blackfoot River	Lat 42°49'43", long 111°20'15", in center of sec.8, T.7 S., R.44 E., Caribou County, at road crossing, 1.1 mi northeast of Trail guard station, and 11 mi southeast of Henry.	13.9	1962-71c, 1973-76	10-19-76 6- 7-77 7-13-77 9-28-77	1.2 a .71 a 0 0
Blackfoot River 13062725	Snake River	SW¼ sec.19, T.7 S., R.44 E., Caribou County, about 7 mi southeast of Henry.	-	-	6- 7-77	a48.1
Dry Valley Creek 13062795	Blackfoot River	Lat 43°15'00", long 111°18'43", in NW¼NE¼ NE¼ sec.21, T.8 S., R.44 E., Caribou County, 17 mi southeast of Henry, at U.S. Forest Service boundary.	-	-	10-20-76	.33
Maybe Canyon Spring 13062810	Dry Valley Creek	Lat 42°44'49", long 111°17'41", in SE¼ NW¼NE¼ sec.10, T.8 S., R.44 E., Caribou County, 16.5 mi southeast of Henry.	-	-	10-20-76	.62
Maybe Creek Spring 13062815	Dry Valley Creek	Lat 42°44'52", long 111°17'43", in SE¼ NW¼NE¼ sec.10, T.8 S., R.44 E., Caribou County, 16.5 mi southeast of Henry.	-	-	10-20-76	.02
Maybe Creek 13062820	Dry Valley Creek	Lat 42°44'44", long 111°16'04", in NE¼SE¼NE¼ sec.9, T.8 S., R.44 E., Caribou County, 15.7 mi southeast of Henry.	-	-	10-20-76	.10
Dry Valley Creek	Blackfoot River	Lat 42°45'30", long 111°20'17", in SE¼SE¼ NW¼ sec.5, T.8 S., R.44 E., Caribou County, above railroad crossing, downstream from Maybe Creek, 14.2 mi southeast of Henry.	-	-	10-20-76 6- 7-77 7-13-77	.25 a0 a0
Slug Creek 13062870	Blackfoot River	Lat 42°36'02", long 111°18'01", in NE¼SE¼ NW¼ sec.34, T.9 S., R.44 E., Caribou County, downstream from Horseshoe Spring, and 15.5 mi southeast of Soda Springs.	-	-	10-20-76	.24

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Blackfoot River basin--Continued				
Goodheart Creek 13062875	Slug Creek	Lat 42°40'56", long 111°18'04", in SW¼NE¼ SW¼ sec.34, T.8 S., R.44 E., Caribou County, upstream from Goodheart Spring and 14.8 mi east of Soda Springs.	-	-	10-20-76	.11
Goodheart Spring 13062876	Goodheart Creek	Lat 42°41'06", long 111°18'08", in NW¼ NE¼SW¼ sec.34, T.8 S., R.44 E., Caribou County, 14.7 mi east of Soda Springs.	-	-	10-20-76	.04
Goodheart Creek	Slug Creek	Lat 42°40'25", long 111°19'53", in NW¼SE¼ NE¼ sec.5, T.9 S., R.44 E., Caribou County, near mouth of Goodheart Creek at road crossing, 13.1 mi east of Soda Springs.	-	-	10-20-76	.43
Slug Creek 13062880	Blackfoot River	Lat 42°41'03", long 111°21'13", in NE¼ NW¼ SE¼ sec.31, T.8 S., R.44 E., Caribou County, downstream from Goodheart Creek 12 mi east of Soda Springs.	-	-	10-20-76	2.45
Johnson Creek 13062890	Slug Creek	Lat 42°40'34", long 111°24'27", in NE¼ NE¼NE¼ sec.3, T.9 S., R.43 E., Caribou County, upstream from Dry Fork, 9.2 mi east of Soda Springs.	-	-	10-19-76	.47
Johnson Creek 13062900	Slug Creek	Lat 42°41'58", long 111°23'16", in SE¼ SE¼NE¼ sec.26, T.8 S., R.43 E., Caribou County, below Wood Canyon 9.9 mi northeast of Soda Springs.	-	-	10-19-76	1.29
Slug Creek 13062905	Blackfoot River	Lat 42°42'24", long 111°22'04", in SW¼SW¼ SW¼ sec.19, T.8 S., R.44 E., Caribou County, at Sweet Ranch 11.6 mi northeast of Soda Springs.	-	-	10-21-76	7.06
Slug Creek 13062920	Blackfoot River	Lat 42°45'05", long 111°23'55", in SE¼SE¼ SW¼ sec.2, T.8 S., R.43 E., Caribou County, 11.3 mi northeast of Soda Springs.	-	-	10-21-76 6- 7-77 7-13-77	12.2 a2.15 a1.92
Trail Creek 13062950	Blackfoot River	Lat 42°30'14", long 111°26'18", in NE¼ NE¼ SW¼ sec.21, T.8 S., R.43 E., Caribou County, above Finlayson Ranch 8.2 mi northeast from Soda Springs.	-	-	10-19-76	3.27
Trail Creek 13062960	Blackfoot River	Lat 42°45'30", long 111°26'47", in SW¼SW¼ NW¼ sec.4, T.8 S., R.43 E., Caribou County, upstream from mouth of Trail Creek 9.5 mi northeast from Soda Springs.	-	-	10-19-76	3.72
Trail Creek tributary 13062970	Trail Creek	Lat 42°45'29", long 111°27'40", in SW¼SE¼ NW¼ sec.5, T.8 S., R.43 E., Caribou County, above a meadow 9 mi northeast from Soda Springs.	-	-	10-9-76	.15
Small Stream 13062990	Blackfoot River	Lat 42°48'01", long 111°31'58", in NW¼NW¼ SE¼ sec.22, T.7 S., R.42 E., in Caribou County, draining north end of Aspen Range 9.5 mi northeast from Soda Springs.	-	-	10-21-76	.21
Little Blackfoot River 13063360	Blackfoot Reservoir	Lat 43°56'32", long 111°26'08", in NE¼SW¼ SW¼ sec.32, T.5 S., R.43 E., Caribou County at head near Lander cut-off road 5.1 mi northeast of Henry.	-	-	10-19-76	.13
Little Blackfoot River 13063370	Blackfoot River	Lat 43°55'12", long 111°26'27", in SW¼SW¼ SE¼ sec.5, T.6 S., R.43 E., Caribou County, below a pond at a ranch house 4.6 mi northeast of Henry.	-	-	10-19-76	1.34
S. Fk. Little Blackfoot River 13063380	Blackfoot Reservoir	Lat 42°52'33", long 111°26'38", in SE¼SE¼ SW¼ sec.20, T.6 S., R.43 E., Caribou County, at road crossing 5.1 mi southeast of Henry.	-	-	10-19-76	.31
S. Fk. Little Blackfoot River 13063385	Blackfoot Reservoir	Lat 42°53'14", long 111°26'38", in NW¼NE¼ NW¼ sec.20, T.6 S., R.43 E., Caribou County at road crossing, 4.5 mi southeast of Henry.	-	-	10-19-76	.35

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Blackfoot River basin--Continued				
Spring tributary 13063390	Blackfoot River	Lat 42°54'30", long 111°26'49", in NW¼SW¼ NW¼ sec.8, T.6 S., R.43 E., Caribou County in Enoch Valley, 4.2 mi east of Henry.	-	-	10-19-76	.39
Little Blackfoot River 13063500	Blackfoot River	Lat 42°54'30", long 111°31'45", in NW¼SW¼ SW¼ sec.10, T.6 S., R.42 E., Caribou County at bridge on Kirk ranch and at Henry.	38.8	1914-25	10-21-76	15.3
					6- 7-77	a11.5
					7-14-77	a10.5
Meadow Creek 13064500	Blackfoot Reservoir	Lat 43°55'30", long 111°30'40", in NE¼SE¼ sec.3, T.6 S., R.42 E., Caribou County, 0.5 mi above flow line of Blackfoot Reservoir, 0.7 mi downstream from Goose Lake, and 4.5 mi northeast of Henry.	75.2	1914-25	10-19-76	15.8
					6- 7-77	a9.99
					7-14-77	a8.69
Wolverine Creek 13065940	Blackfoot River	Lat 43°15'02", long 112°00'59", in NW¼NW¼ sec.16, T.2 S., R.38 E., Bingham County, at county road bridge and 5.1 mi southeast of Goshen.	-	1973, 1975-76	7- 8-77	a1.55
					8-26-77	a3.01
					9-23-77	6.07
Cedar Creek 13066900	Blackfoot River	Lat 43°18'30", long 112°03'20", in NW¼ sec. 30, T.1 S., R.38 E., Bingham County, 1.2 mi east of Goshen.	10.5	1962,1973, 1975-76	7- 8-77	a0
					8-26-77	a0
					9-23-77	0
		Snake River basin				
"E" Spring 13069502	Snake River	Lat 43°07'02", long 112°31'15", in NE¼ sec. 31, T.3 S., R.34 E., Bingham County, on left bank of Snake River, 3.5 mi east of Pingree.	-	-	9- 7-77	19.1
					11-15-77	17.4
"F" Spring 13069503	Snake River	Lat 43°06'50", long 112°31'09", in SE¼ sec. 31, T.3 S., R.34 E., Bingham County, on left bank of Snake River 3.5 mi east of Pingree.	-	-	9- 7-77	14.8
					11-15-77	2.8
"F-1" Spring 13069504	Snake River	Lat 43°06'35", long 112°31'00", in SE¼ sec.31, T.3 S., R.34 E., Bingham County, on left bank of Snake River, 3.5 mi east of Pingree.	-	-	9- 7-77	87.6
					11-15-77	88.8
Johannes's Spring (A&B) 13069505	Snake River	Lat 43°06'04", long 112°32'18", in SE¼ sec. 1, T.4 S., R.33 E., Bingham County, on right bank of Snake River, 3 mi east and 1 mi south of Pingree.	-	-	9-10-77	32.2
					11-15-77	31.6
Diggie Creek 13069506	Snake River	Lat 43°05'39", long 112°32'26", in NE¼ sec. 7, T.4 S., R.34 E., Bingham County, on left bank of Snake River, 2 mi south and 3.5 mi east of Pingree.	-	-	9-10-77	246
					11-17-77	272
Thorn Spring (C) 13069507	Snake River	Lat 43°05'00", long 112°33'13", in SE¼ sec.11, T.4 S., R.33 E., Bingham County, 2.5 mi south and 2 mi east of Pingree.	-	-	9-11-77	11.4
					11-16-77	12.1
Jeff Cabin 13069508	Snake River	Lat 43°04'03", long 112°33'01", in SW¼ sec.13, T.4 S., R.33 E., 150 ft below road crossing.	-	-	9-10-77	22.8
					11-17-77	19.5
Log Cabin (D) 13069509	Snake River	Lat 43°03'43", long 112°34'31", in NE¼ sec.22, T.4 S., R.33 E., 4 mi south of Pingree.	-	-	9-11-77	28.8
					11-16-77	27.8
Pyle Springs 13069511	Snake River	Lat 43°03'42", long 112°34'32", in NE¼ sec.32, T.4 S., R.33 E., Bingham County, 6 mi south of Pingree.	-	1926-29, 1932-76	4- 8-77	8.06
					4-26-77	7.80
					6-21-77	4.76
					7-12-77	6.31
					8- 6-77	5.05
					8-29-77	5.34
					9-16-77	6.41
					10- 3-77	6.90
McTucker Springs 13069515	Snake River	Lat 43°02'03", long 112°37'33", in NW¼ sec. 32, T.4 S., R.33 E., Bingham County, 6 mi south of Pingree.	-	1926-29, 1932-76	4- 8-77	24.9
					4-26-77	23.4
					6-21-77	18.0
					7-12-77	20.4
					8- 6-77	28.9
					8-29-77	21.4
					9-16-77	26.3
					10- 3-77	27.8

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Snake River basin--Continued				
Snake River @ McTucker 13069518	Columbia River	Lat 43°01'17", long 112°40 42", in NE¼ sec. 2, T.5 S., R.32 E., Bingham County, downstream from flow line of American Falls Reservoir and 4 mi south of Springfield.	-	-	9- 7-77 11-16-77	1,620 2,640
Hull Springs 13069520	Snake River	Lat 43°02'49", long 112°39'39", in NE¼ sec. 25, T.4 S., R.32 E., Bingham County, 2.5 mi southeast of Springfield.	-	1926-29, 1932-67, 1971-72, 1974-76	4- 8-77 4-25-77 6-21-77 7-12-77 8- 6-77 8-29-77 9-16-77 10- 3-77	11.0 5.77 5.91 7.33 12.3 9.24 8.21 7.12
Danielson Creek 13069540	Snake River	Lat 43°03'32", long 112°41'24", in NW¼SW¼ sec.23, T.4 S., R.32 E., Bingham County, 2.5 mi south of Springfield.	-	1926-29, 1932-76	4- 8-77 4-25-77 6-21-77 7-12-77 8- 6-77 8-29-77 9-16-77 10- 3-77	44.6 40.2 55.0 51.2 53.4 55.1 51.3 52.3
Snake River 13069560	Columbia River	Lat 42°55'48", long 112°45'52", in NW¼ sec. 6, T.6 S., R.32 E., Bingham County, downstream from flow line of American Falls Reservoir and 3 mi east and 1 mi south of Aberdeen.	-	-	9- 8-77 11-15-77	1,800 2,620
		Portneuf River basin				
Portneuf River 13071000	Snake River	Lat 42°52', long 111°56', in sec.30, T.6 S., R.39 E., Caribou County, on right bank 0.2 mi downstream from Portneuf-Marsh Valley Dam, 2.5 mi west of Chesterfield.	b92	1912-15	8-31-77	a .25
Portneuf River tributary 13072100	Portneuf River	Lat 42°43'30", long 111°54'25", in SE¼ sec. 16, T.8 S., R.39 E., Caribou County, at Union Pacific crossing and 1 mi northwest of Bancroft.	b130	1962-63, 1973-74, 1976	8-25-77	a0
Pebble Creek 13072500	Portneuf River	Lat 42°44', long 112°02', in sec.8, T.8 S., R.38 E., Caribou County, on left bank about 0.5 mi upstream from ranger station and 1.5 mi west of Pebble.	27.2	1911-14	6-23-77 7-14-77 8-31-77	a7.67 a4.68 a4.58
Dempsey Creek 13072890	Portneuf River	Operated as a crest-stage station.	42	1975-76	11- 9-77	1.80
Robbers Roost Creek 13073700	Portneuf River	Lat 42°42'20", long 112°12'10", in SE¼ sec. 16, T.8 S., R.36 E., Bannock County, at culvert on U.S. Highway 30N, 3.5 mi north of McCammon, and 6.5 mi south of Inkom.	b5.7	1961-71c, 1973-76	6-17-77 7-15-77 8-26-77 9-28-77	a .04 a .03 a0 .01
Birch Creek 13074000	Portneuf River	Lat 42°21', long 112°15', in SE¼ sec.28, T.12 S., R.36 E., Oneida County, on left bank just downstream from point where flow that is diverted through Malad powerplant reenters stream 8.6 mi southwest of Downey, and 10 mi upstream from mouth.	6.56	1911-14, 1937-49	6-17-77 7-15-77	a7.29 a5.07
Inman Creek 13075090	Rapid River	Operated as a crest-stage station.	-	1973-76	11- 8-77	1.30
East Fork Mink Creek 13075300	Mink Creek	Lat 42°44'20", long 112°20'30", in sec.8, T.8 S., R.35 E., Bannock County, 9 mi southeast of Pocatello.	14.7	1912, 1963-71c, 1973-76	6-17-77 7-15-77 8-31-77 9-28-77	a1.01 a .74 a .64 .37
N. Fk. Pocatello Creek 13075600	Pocatello Creek	Lat 42°53'10", long 112°23'45", in NW¼ sec.20, T.6 S., R.35 E., Bannock County, 300 ft upstream from confluence with South Fork Pocatello Creek, 2 mi northeast of Idaho State University, and 3.5 mi east of Pocatello.	14	1961-71c, 1973-76	6-17-77 7-15-77 8-31-77 9-23-77	a1.01 a .29 a .28 .57
Portneuf River 13075910	Snake River	Lat 42°56'40", long 112°32'40", in NE¼ sec. 36, T.5 S., R.33 E., Bannock-Power County line, 4 mi west of Tyhee.	-	1926-29,	4- 9-77 4-30-77 6-22-77 7-12-77 8- 5-77 8-27-77 9-17-77 10- 3-77	552 264 216 122 223 318 351 407

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Portneuf River basin--Continued				
Wide Creek 13075920	Portneuf River	Lat 42°57'30", long 112°34'10", in NW¼ sec. 26, T.5 S., R.33 E., Power County, Fort Hall Indian Reservation, 8 mi northwest of Pocatello.	-	1926-29, 1932-76	4- 9-77	61.8
					4-30-77	50.0
					6-22-77	54.0
					7-13-77	48.9
					8- 5-77	55.1
					8-30-77	58.4
					9-17-77	52.9
					10- 4-77	59.7
Clear Creek 13075930	Portneuf River	Lat 42°59'40", long 112°34'15", in SW¼ sec. 11, T.5 S., R.33 E., Bannock County, just upstream from Ford Creek and 7 mi west of Fort Hall.	-	1926-29, 1932-76	4- 9-77	118
					4-26-77	121
					6-22-77	124
					7-12-77	117
					8- 6-77	108
					8-30-77	99.8
					9-16-77	122
					10- 3-77	137
Ford Creek 13075940	Clear Creek	Lat 42°59'40", long 112°34'15", in SW¼ sec. 11, T.5 S., R.33 E., Bannock County, just upstream from mouth and 7 mi west of Fort Hall.	-	1926-29, 1932-76	4- 9-77	6.97
					4-26-77	6.54
					6-22-77	7.10
					7-12-77	8.25
					8- 6-77	6.89
					8-30-77	6.03
					9-16-77	6.45
					10- 3-77	7.26
Ross Fork Creek 13075960	Clear Creek	Lat 42°59'10", long 112°33'50", near center of sec.14, T.5 S., R.33 E., Bannock County, 7 mi southwest of Fort Hall.	-	1926-29, 1932-76	4- 9-77	55.6
					4-30-77	93.9
					6-22-77	62.7
					7-12-77	63.7
					8- 5-77	69.7
					8-27-77	68.0
					9-17-77	90.6
					10- 3-77	87.5
Kinney Creek 13075970	Portneuf River	Lat 42°59'10", long 112°35'05", near center of sec.15, T.5 S., R.33 E., Bannock County, 8 mi west of Fort Hall.	-	1926-29, 1932-76	4- 9-77	27.2
					4-26-77	25.1
					6-22-77	21.7
					7-12-77	22.3
					8- 6-77	25.8
					8-30-77	24.0
					9-16-77	26.9
					10- 3-77	27.5
Portneuf River 13075978	Snake River	Lat 42°56'25", long 112°41'09", in SE¼ sec. 35, T.5 S., R.32 E., Power County, below flow line of American Falls Reservoir and 4 mi north and 1 mi west of Schiller.	-	-	9- 9-77	1,090
Spring Creek 13075985	Portneuf River	Lat 42°00'09", long 112°36'01", in NE¼ sec. 9, T.5 S., R.33 E., Bannock County, at road crossing and 8 mi west of Fort Hall.	-	1926-29, 1932-76	4- 8-77	466
					4-26-77	463
					6-22-77	456
					7-12-77	409
					8- 6-77	423
					8-27-77	456
					9-16-77	465
					10- 3-77	485
Big Jimmy Creek 13075990	Spring Creek	Lat 43°00'47", long 112°36'04", in SE¼ sec.4, T.5 S., R.33 E., Bannock County, 8 mi west of Fort Hall.	-	1926-29, 1932-76	4- 8-77	30.0
					4-26-77	29.5
					6-22-77	27.4
					7-12-77	24.7
					8- 6-77	29.9
					8-27-77	30.9
					9-16-77	28.7
					10- 3-77	35.4
Portneuf River 13075993	Snake River	Lat 42 56'22", long 112 41'18", in SE¼, sec. 35, T.5 S., R.32 E., Power County, below flow line of American Falls Reservoir and 4.0 mi north and 1 mi west of Schiller.	-	-	9- 9-77	1,560
					9-15-77	1,690
		Bannock Creek basin				
Bannock Creek 13076000	Portneuf River	Lat 42°41'40", long 112°35'40", in NE¼SE¼ sec.28, T.8 S., R.33 E., Power County, on Fort Hall Indian Reservation, 0.3 mi upstream from Rattlesnake Creek, 9.5 mi north of Pauline, and 14 mi southwest of Pocatello.	227	1955-58†, 1962-63, 1965, 1973-76	7-21-77	a21.2
					9-14-77	12.8
Rattlesnake Creek 13076100	Bannock Creek	Lat 42°42'00 , long 112°33'40", in NE¼ sec.26, T.8 S., R.33 E., Power County, 2 mi upstream from mouth and 12 mi southwest of Pocatello.	77	1955-59, 1962, 1973-76	7-21-77	a8.08
					9-14-77	6.95

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Portneuf River basin				
Bannock Creek 13076200	Portneuf River	Lat 42°53'10", long 112°38'30", near center of sec.20, T.6 S., R.33 E., Power County, Fort Hall Indian Reservation, at Highway 30N crossing and 10 mi west of Pocatello.	413	1962-63, 1965, 1968-76	4- 9-77 4-30-77 6-22-77 7-13-77 8- 5-77 8-30-77 9-17-77 10- 4-77	43.2 38.7 16.0 9.39 5.58 21.9 61.6 14.5
Bannock Creek 13076205	Portneuf River	Lat 42°53'28", long 112°43'05", in NW¼ sec. 21, T.6 S., R.32 E., Power County, below flow line of American Falls Reservoir and at end of Rainbow Beach road.	-	-	9- 9-77	32.5
		Snake River basin				
Aberdeen wasteway 13076300	Snake River	Lat 42 55'27", long 112 48'38", in SE¼SE¼ sec. 3, T.6 S., R.31 E., Bingham County, 1.5 mi southeast of Aberdeen.	-	1970-75	4-25-77 6-21-77 7-12-77 8- 6-77 8-29-77 9-16-77 10- 3-77	91.2 24.5 14.1 33.6 11.9 32.0 7.2
Snake River 13076310	Columbia River	Lat 47°32'02", long 112°51'54", in SW¼ sec. 8, T.7 S., R.31 E., Power County, below flow line of American Falls Reservoir and 3 mi north of American Falls.	-	-	9-28-77	3,210
Ruegar Springs 13076600	Snake River	Lat 42°46'00", long 112°52'55", in SW¼ sec. 31, T.8 S., R.31 E., Power County, at fish hatchery and 0.9 mi downstream from American Falls Dam.	-	1927-29, 1932-53, 1961-75	4- 9-77 6-22-77 8- 4-77 10- 3-77	24.5 21.4 21.1 21.0
		Rock Creek basin				
Rock Creek 13077400	Snake River	Lat 42°30'40", long 112°50'30", in NE¼NW¼ sec. 33, T.10 S., R.32 E., Power County, 1.9 mi upstream from former gage site and 4.6 mi southeast of Rockland.	156	1947,1963, 1965, 1973-76	9-14-77	3.87
E. Fk. Rock Creek 13077600	Rock Creek	Lat 42°33'40", long 112°47'20", in SW¼SW¼ sec. 12, T.10 S., R.32 E., Power County, on right bank 0.3 mi upstream from Bench Ditch diversion and 4.5 mi east of Rockland.	13.7	1960-64	6-10-77 8-30-77 10- 5-77	a21.5 a19.4 a17.8
		Raft River basin				
Raft River 13077659	Snake River	Lat 41°56'50", long 113°42'00", in NE¼NE¼ sec. 17, T.14 N., R.16 W., Box Elder County, at road crossing and 8 mi west of Yost, Utah.	146	1965-67, 1973-76	6-22-77 9-14-77	a4.29 2.78
Cassia Creek 13079100	Raft River	Lat 42°15'10", long 113°39'15", in lot 2 NE¼ sec.33, T.13 S., R.24 E., Cassia County, Sawtooth National Forest, on right bank 300 ft upstream from Stinson Creek and 5 mi west of Elba.	7.2	1965-75	6-22-77 9-19-77 10- 5-77	a4.94 a .87 a .73
Cassia Creek 13079200	Raft River	Lat 42°17', long 113°31', in SE¼ sec.22, T.13 S., R.25 E., Cassia County, on left bank 200 ft downstream from bridge on State Highway 77, 3 mi northeast of Elba, 7.75 mi southwest of Malta, and at mile 15.4.	84	1956-62‡	6-22-77 9-19-77 10- 5-77	a23.5 a5.2 a5.7
Sublett Creek 13079600	Warm Creek	Lat 42°19'36", long 113°00'13", in NE¼NE¼ sec. 1, T.13 S., R.29 E., Cassia County, Sawtooth National Forest, 0.9 mi east of Sawtooth National Forest boundary and 7 mi east of Sublett.	b24	1965-67‡	6-21-77 8-30-77 10- 5-77	a5.9 a5.1 a5.1
Heglar Canyon tributary 13079800	Raft River	Lat 42°28'30", long 113°08'40", in SE¼SW¼ sec. 11, T.11 S., R.38 E., Cassia County, 600 ft upstream from Heglar Canyon road crossing and 16 mi southwest of Rockland.	7.72	1958, 1961-71c, 1973-76c	6-21-77 9-14-77	a0 a0
		Marsh Creek basin				
Marsh Creek 13082300	Snake River	Lat 42°27'20", long 113°31'10", in NE¼ sec. 22, T.11 S., R.25 E., Cassia County, on left bank 750 ft upstream from concrete diversion dam and 5 mi northeast of Albion.	86	1966-75	6-22-77 9-19-77 10- 5-77	a1.45 a4.66 a4.33

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Goose Creek basin				
Birch Creek 13084400	Goose Creek	Lat 42°10'40", long 113°49'05", in SE¼SW¼NE¼ sec. 25, T.14 S., R.22 E., Cassia County, at county road crossing, 0.3 mi downstream from North Carson Creek, and 5.3 mi southeast of Oakley.	-	1973-76c	6-22-77 9-14-77	a9.08 1.66
Basin (Mill Creek) 13084600	Goose Creek	Lat 42°15', long 113°48', sec.32, T.13 S., R. 23 E., Cassia County, at road crossing, in Basin.	-	-	9- 9-77 10- 7-77	a0 a .10
Marion Pipeline Co. Spring	Goose Creek	NE¼NW¼ sec.6, T.14 S., R.21 E., Cassia County, in collection box at end of 2.5 mi concrete pipeline and 2 mi west of Oakley.	-	-	7-16-77	.3
		Dry Creek basin				
Big Cottonwood Creek 13088490	Dry Creek	Lat 42°15'30", long 114°03'00", in SE¼ sec. 25, T.13 S., R.20 E., Cassia County, 3 mi upstream from Twin Falls-Oakley Land and Water Co. diversion canal and 9 mi northwest of Oakley.	b29	1909-15‡	9- 9-77	a0
		Tributaries between Snake River at Milner and Salmon Falls Creek				
Devils Washbowl Spring 13089600	Snake River	Lat 42°35'18", long 114°20'45", in NE¼NE¼ sec. 4, T.10 S., R.18 E., Jerome County, at old abandoned powerplant, about 0.2 mi upstream from mouth on right bank of Snake River, 0.5 mi upstream from Twin Falls, and 3.5 mi north of Kimberly.	-	1902,1917, 1923-24, 1950-59, 1963-76	3- 4-77 11- 3-77	17.1 19.1
Devils Corral Spring (upper outlet) 13090100	Snake River	Lat 42°35'38", long 114°21'55", in SE¼SE¼ sec. 32, T.9 S., R.18 E., Jerome County, 100 ft above point where flow cascades into right bank of Snake River at mile 617.1, about 2 mi upstream from Shoshone Falls and powerplant, and 4 mi north of Kimberly.	-	1902, 1923-24, 1939, 1950-59, 1963-76	2-28-77 10-31-77	40.7 45.0
Devils Corral Spring (lower outlet) 13090100	Snake River	Lat 42°36'01", long 114°22'30", in SE¼NW¼ sec. 32, T.9 S., R.18 E., Jerome County, 0.1 mi upstream from mouth on right bank of Snake River, 0.7 mi northwest of upper outlet, and 4.5 mi north of Kimberly.	-	1902,1923, 1950-59, 1963-76	2-28-77 10-31-77	7.36 5.40
Unnamed spring No. 1 13090300	Snake River	Lat 42°36'30", long 114°23'36", in SW¼NE¼ sec. 31, T.9 S., R.18 E., Jerome County, near mouth on right bank of Snake River, 0.5 mi upstream from Shoshone powerplant, and 4 mi northeast of Twin Falls.	-	1950-59, 1963-76	2-28-77 10-31-77	1.55 1.73
Unnamed spring No. 2 13090350	Snake River	Lat 42°35'52", long 114°23'55", in NW¼SW¼ sec. 31, T.9 S., R.18 E., Jerome County, on right bank of Snake River just above Shoshone Falls and 4 mi northeast of Twin Falls.	-	1950-59, 1963-76	2-28-77 10-31-77	5.89 5.68
Blue Lakes Spring 13091500	Snake River	Lat 42°36'10", long 114°28'34", in SW¼SW¼ sec. 28, T.9 S., R.17 E., Jerome County, at point of entry to right bank of Snake River, 4 mi north of Twin Falls, and at mile 610.3.	-	1902, 1913-14, 1917-20‡, 1921-47 1950-59, 1963-71, 1973-76	3- 3-77 10-31-77	225 198
Warm Creek 13091700	Snake River	Lat 42°37'15", long 114°29'55", in NW¼NW¼ sec. 29, T.9 S., R.17 E., Jerome County, 0.6 mi upstream from point of entry to right bank of Snake River, 1.5 mi northwest of Blue Lakes Spring outlet, and 4.6 mi northwest of Twin Falls.	-	1903,1917, 1931, 1950-59, 1963-71, 1973-76	3- 3-77 10-31-77	10.5 20.0
		Rock Creek basin				
Rock Creek 13092000	Snake River	Lat 42°21'23", long 114°18'12", in NW¼NW¼ sec. 25, T.12 S., R.18 E., Twin Falls County, on right bank 0.1 mi downstream from road bridge and 12 mi south of Hansen.	b80	1909-13, 1938-39, 1943-74	9- 7-77 10- 6-77	a6.86 a8.73
McMullen Creek 13092500	Rock Creek	Lat 42°24'10", long 114°22'20", in SW¼NE¼ sec. 8, T.12 S., R.18 E., Twin Falls County, 4 mi southwest of Rock Creek, and 11.5 mi south of Kimberly.	22.7	1910,1912	9- 7-77 9-14-77 10- 6-77	a .10 0 a0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Tributaries between Snake River at Milner and Salmon Falls Creek				
Crystal Springs 13093400	Snake River	Lat 42°37'36", long 114°38'32", in sec.12, T. 9 S., R.15 E., Gooding County, a series of springs along a 0.6 mi reach of the right bank of Snake River, 1 mi upstream from Niagara Springs, and 6.5 mi north of Filer.	-	1902,1917 1919, 1924-25, 1931, 1950-59, 1963-76	3- 2-77 11- 2-77	544 498
Ellisons Springs 13093300	Snake River	Lat 42°38'13", long 114°33'40", in NE¼ sec.22, T.9 S., R.16 E., Jerome County, near entry to right bank of Snake River, 1.3 mi downstream from Rock Creek, and 6.5 mi south of Jerome.	-	1950-59, 1963-74	3- 3-77 11- 1-77	1.20 1.47
		Cedar Draw basin				
Cedar Draw 13093500	Snake River	Lat 42°37'25", long 114°39'05", in SW¼SW¼ sec. 24, T.9 S., R.15 E., Twin Falls County, 2.7 mi upstream from mouth and 4.5 mi northwest of Filer.	-	1955-58‡	8-19-77 10- 7-77	a46.2 57.1
		Tributaries between Snake River at Milner and Salmon Falls Creek--Continued				
Niagara Springs 13093700	Snake River	Lat 42°39'46", long 114°40'24", in NW¼SW¼NW¼ sec.11, T.9 S., R.15 E., Gooding County, in spring outlet channel 120 ft upstream from mouth, 880 ft downstream from source, 6 mi northeast of Buhl, and 599.1 mi upstream from mouth of Snake River.	-	1958-72‡, 1973-76	3- 2-77 11- 2-77	294 276
Clear Lakes 13094500	Snake River	Lat 42°40'01", long 114°46'45", in SW¼SE¼ sec.2, T.9 S., R.14 E., Gooding County, at Clear Lakes powerplant of Idaho Power Company and 4.5 mi north of Buhl.	-	1902, 1913-14, 1917-21‡, 1924,1926, 1937, 1950-59, 1963-76	3 -1-77 11- 3-77	533 511
Mud Creek 13094700	Snake River	Lat 42°39'40", long 114°47'40", in SW¼SE¼NE¼ sec.10, T.9 S., R.14 E., Twin Falls County, on south side Snake River, 0.5 mi upstream from mouth, and 4.5 mi northwest of Buhl.	-	1958-59	8-19-77	a60.8
Deep Creek 13095000	Snake River	Lat 42°37'20", long 114°50'20", in SW¼SE¼ sec.20, T.9 S., R.14 E., Twin Falls County, at Highway 30 crossing and 4.5 mi northwest of Buhl.	-	1913, 1954, 1955-58‡	8-19-77 10-26-77	a2.15 a5.24
Briggs Creek 13095200	Snake River	Lat 42°40'20", long 114°49'00", in NW¼SE¼ sec. 4, T.9 S., R.14 E., Gooding County, 500 ft upstream from mouth on right bank of Snake River, 2 mi downstream from Clear Lakes Spring outlet, and 6 mi northwest of Buhl.	-	1902,1913, 1917-20, 1924-25, 1931, 1950-59, 1963-76	3- 1-77 11- 3-77	118 109
Banbury Springs 13095300	Snake River	Lat 42°41'31", long 114°49'11", in SE¼NW¼ sec. 33, T.8 S., R.14 E., Gooding County, at outlet on right bank of Snake River and 7 mi northwest of Buhl.	-	1902,1913, 1917, 1919-20, 1924-25, 1950-59, 1963-71, 1973-76	3- 3-77 11- 1-77	117 130
Unnamed Spring 13095350	Snake River	Lat 42°41'51", long 114°49'21", in SE¼SW¼ sec.28, T.8 S., R.14 E., Gooding County, on right bank of Snake River, 0.4 mi south of Blind Canyon Spring, and 7.5 mi northwest of Buhl.	-	1950-59, 1963-71, 1973-76	3- 3-77 11- 1-77	4.49 5.56
Blind Canyon 13095400	Snake River	Lat 42°42'12", long 114°49'20", in SE¼NW¼ sec.28, T.8 S., R.14 E., Gooding County, at outlet on right bank of Snake River, 0.2 mi upstream from Box Canyon Springs outlet, and 8 mi northwest of Buhl.	-	1902,1917, 1919, 1950-59, 1963-76	3- 3-77 11- 1-77	12.1 22.3

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Salmon Falls Creek basin						
Shoshone Creek 13104000	Salmon Falls Creek	Lat 41°57'20", long 114°37'40", in sec.17, T.47 N., R.65 E., about half a mile upstream from headworks of N. side ditch, 2 mi upstream from Shoshone ranch house, and about 11 mi northeast of San Jacinto.	309	1914-15	9- 8-77 10- 6-77	a0 a0
Cedar Creek 13106600	Salmon Falls Creek	Lat 42°11'15", long 114°54'38", in SE¼ sec. 22, T.14 S., R.13 E., Owyhee County, road crossing on Rogerson-Jarbridge road, 10 mi west of Salmon Falls Creek Dam near Rogerson.	b36	1961-68‡	9- 8-77 10- 6-77	a5.18 a4.42
House Creek 13106650	Cedar Creek	SE¼ sec.1, T.14 S., R.13 E., Owyhee County, at road crossing and 10.5 mi northeast of Three Creeks.	b40	1961-68‡	9- 8-77 10- 6-77	a .99 a0
Snake River basin						
Snake River 13108160	Columbia River	Lat 42°43'27", long 114°50'48", in NE¼NW¼NW¼ sec.20, T.8 S., R.14 E., Twin Falls-Gooding County line, 0.6 mi below mouth of Salmon Falls Creek, 1.4 mi above Thousand Springs powerhouse, 7 mi southeast of Hagerman, and at mi 586.1.	-	-	3- 3-77 11- 1-77	7,290 3,840
Mud Lake-Lost River basins						
West Camas Creek 13108200	Camas Creek	Lat 44°28'40", long 112°02'40", on SE sec. line of sec.1, T.13 N., R.37 E., Clark County, at Frazier Dam, 1.5 mi downstream from Pete Creek, 9 mi northwest of Kilgore, and 11 mi northeast of Spencer.	-	1957-58, 1973-76	7- 6-77 9- 8-77	a11.37 a4.36
Beaver Creek 13112300	Camas Creek	Lat 44°28'40", long 112°13'30", in SE¼ sec. 4, T.13 N., R.36 E., Clark County, at Union Pacific Railroad bridge, 0.3 mi downstream from Humphrey, and 8.4 mi north of Spencer.	-	1957-58, 1973-77	7- 6-77 9- 8-77	a3.58 2.50
Main Fork 13117200	Little Lost River	Lat 44°24'06", long 113°24'18", in SW¼NE¼ sec. 6, T.12 N., R.26 E., Lemhi County, Challis National Forest, at road crossing, 0.5 mi upstream from confluence with Timber Creek, and 12 mi east of Goldburg.	15.6	1960-71c, 1973-77	9-14-77 9-26-77 10-12-77	a8.10 12.3 a6.79
Dry Creek 13117600	Little Lost River	Lat 44°09'30", long 113°31'45", in NW¼ sec. 31, T.10 N., R.25 E., Custer County, at old road crossing upstream from Taylor No. 1 diversion, 1.6 mi downstream from old damsite, 14.3 mi west of Clyde, and 36.5 mi northwest of Howe.	42.2	1932, 1935-36, 1938, 1959-62, 1973-76	9-26-77 10-18-77	16.9 a16.7
Wet Creek 13118400	Little Lost River	Lat 44°02'49", long 113°27'00", in SW¼ sec. 2, T.8 N., R.25 E., Butte County, Challis National Forest, at Pass Creek road crossing, 12.1 mi northeast of Mackay, and 12.3 mi southwest of Clyde.	-	1959-71c, 1973-76	9-16-77 9-26-77 10-18-77	a3.63 4.85 a4.34
Wayne Bare ditch 13119495	Little Lost River	Lat 43°52'07", long 113°05'03", in SE¼NE¼NW¼ sec.11, T.6 N., R.28 E., Butte County, at diversion and head of ditch, about 20 ft above diversion of Blaine County Investment Co. canal, 500 ft downstream from gaging station 13118000 Little Lost River near Howe, and 7 mi northwest of Howe.	-	-	7-23-77 8-26-77	7.90 4.75
Little Lost River 13119500	Snake River	SE¼SE¼ sec.4, T.5 N., R.29 E., Butte County, at Highway 22 and Highway 28 crossing.	-	-	9-14-77 10-20-77	a12.6 a14.4
Wild Horse Creek 13120300	E. Fk. Big Lost River	Lat 43°54'00", long 114°05'50", in SE¼ sec. 28, T.7 N., R.20 E., Custer County, at road bridge 0.4 mi north of Wild Horse guard station, 0.7 mi south of mouth and 16.7 mi southwest of Chilly.	b58.6	1966-67	9-21-77 10-18-77	a23.8 a16.0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Mud Lake-Lost River basin--Continued				
Thousand Springs Creek 13122000	Big Lost River	Lat 44°04'00", long 113°50'30", in sec.34, T.9 N., R.22 E., Custer County, downstream side of left bank abutment of highway bridge.	145	1912-14 1921-22	9-21-77 10-18-77	a9.65 a12.4
East channel Big Lost River 13123500	Big Lost River	Lat 44°04'00", long 113°50'30", in sec.32, T.8 N., R.23 E., Custer County, on right bank just upstream from flow line of reservoir, 3 mi upstream from Mackay Dam and 7.5 mi northwest of Mackay.	-	1919-59	10-19-77	a8.89
West channel Big Lost River 13124000	Big Lost River	Lat 43°58', long 113°45', in sec.5, T.7 N., R.23 E., Custer County, on left bank above flow line of reservoir, 3 mi upstream from Mackay Dam and 7.5 mi northwest of Mackay.	-	1919-59	10-19-77	a33.5
East channel Warm Springs Creek 13124500	Big Lost River	Lat 43°58', long 113°45', in NE¼ sec.5, T.7 N., R. 23 E., Custer County, on left bank 700 ft upstream from confluence with west channel and 7.5 mi northwest of Mackay.	-	1919-59	10-19-77	a33.3
West channel Warm Springs Creek 13125000	Big Lost River	Lat 43°58', long 113°45', in NE¼ sec.5, T.7 N., R.23 E., Custer County, on right bank 500 ft upstream from confluence with east channel and 7.5 mi northwest of Mackay.	-	1919-59	10-19-77	a82.5
Lower Cedar Creek 13128900	Big Lost River	Lat 43°57'57", long 113°34'40", in NW¼SW¼ sec.2, T.7 N., R.24 E., Custer County, Challis National Forest, on right bank at abandoned powerplant site, approximately 1,000 ft upstream from the heading of Nielson diversion and 3.9 mi northwest of Mackay.	8.26	1963-66	9-16-77 10- 7-77	a14.3 a7.76
Alder Creek 13129800	Big Lost River	Lat 43°49'40", long 113°36'10", in NW¼NW¼ sec.27, T.6 N., R.24 E., Custer County, Challis National Forest, 20 ft downstream from South Fork and 6 mi south of Mackay.	27.6	1966-68‡, 1973, 1975-76	9-15-77 10- 1-77 10-19-77	a5.54 5.18 a5.89
Big Lost River 13130500	Snake River	Lat 43°51'50", long 113°27'20", on line between secs.11 & 14, T.6 N., R.25 E., Custer County, on left bank .3 mi upstream from head of Beck Canal, 1 mi upstream from head of Blaine Canal, and 1 mi southeast of Leslie.	b1,020	1919-22‡, 1937,1966, 1967	9-15-77 10-17-77	a121 a6.7
Cherry Creek 13130920	Antelope Creek	Lat 43°44'00", long 113°39'15", in SE¼NE¼ sec.25, T.5 N., R.23 E., Custer County, at National Forest boundary, 4.4 mi northwest of Grouse School and 18.6 mi west of Arco.	33.1	1966	9-15-77 10-20-77	a1.99 a3.89
Pass Creek 13131500	Big Lost River	Lat 43°56'05", long 113°26'50", in SW¼ sec.14, T.7 N., R.25 E., on line between Butte and Custer County, Challis National Forest, at road bridge, 0.2 mi north of forest boundary, 4.8 mi northwest of Leslie, and 18.3 mi east of Mackay.	23.6	1920-22‡, 1959, 1973, 1975-76	10- 1-77	2.64
Big Lost River 13132000	Snake River	Lat 43°47'20", long 113°21'50", in NE¼ sec. 4, T.5 N., R.26 E., Butte County, 1.0 mi upstream from Moore Canal diversion and 4.0 mi north of Moore.	1,310	1921-25 1926	9-15-77 10-18-77	a59.1 a26.5
Big Lost River 13132555	Snake River	Lat 43°22"10", long 112°37'30", in NW¼NE¼ sec.31, T.3 N., R33 E., Bingham County, at U.S. Highway 20 crossing, 24.6 mi southeast of Howe, 28.5 mi northwest of Blackfoot, and 30.0 mi west of Idaho Falls.	8.7	1962, 1973-76	9-23-77	0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Tributaries to Snake River from Thousand Springs to Big Wood River						
Sand Springs Creek 13132600	Snake River	Lat 42°43'36", long 114°50'00", in SE¼ sec. 17, T.8 S., R.14 E., Gooding County, on right bank of Snake River, 0.5 mi upstream from mouth, and 7 mi southeast of Hagerman.	-	1902, 1912-13, 1917-21, 1924-25, 1932, 1954-59 1963-76	3- 1-77 11- 1-77	86.2 88.8
Thousand Springs 13132800	Snake River	Lat 42°45', long 114°51', where Springs enter right bank of Snake River between mile 154.05 near line between secs.17 & 20, T.8 S., R.14 E., and mile 151.15, about 200 ft upstream from line between sec.1, T.8 S., R.13 E., and sec.6, T.8 S., R.18 E., Gooding County, 6 mi southwest of Hagerman.	-	1950-59, 1963-71, 1973-76	3- 3-77 11- 1-77	1,110 1,240
Snake River basin						
Snake River 13132801	Columbia River	Lat 42°45'26", long 114°52'01", in NW¼SW¼SW¼ sec.6, T.8 S., R.14 E., Twin Falls-Gooding County line, 0.2 mi upstream from mouth of Riley Creek, 0.8 mi below Thousand Springs powerplant, 4.2 mi southeast of Hagerman, and at mile 583.6.	-	-	3- 3-77 11- 1-77	8,400 5,080
Tributaries to Snake River from Thousand Springs to Big Wood River--Continued						
Riley Creek 13133800	Snake River	Lat 42°45'46", long 114°51'31", in SE¼NE¼ sec.6, T.8 S., R.14 E., Gooding County, at Hagerman Hatchery of U.S. Fish and Wildlife Service, 100 ft downstream from small unnamed spring entering from right, 260 ft upstream from discontinued station below Lewis Spring, 300 ft downstream from mouth of Lewis Creek, about 2 mi upstream from mouth, and 4.2 mi southeast of Hagerman.	-	1950-59, 1963-76	3- 1-77 11- 2-77	64.6 73.6
Billingsley Creek 13134800	Snake River	Lat 42°46'35", long 114°50'55", in SW¼SW¼NW¼ sec.32, T.7 S., R.14 E., Gooding County, 0.1 mi downstream from head of creek, 3.8 mi southeast of Hagerman, and about 7.5 mi upstream from mouth.	-	1902, 1917, 1931, 1950-59, 1963-76	2-28-77 11- 3-77	39.7 40.6
Big Wood River basin						
Prairie Creek 13135800	Big Wood River	Lat 43°49'00", long 114°35'50", in NW¼ sec. 31, T.6 N., R.16 E., Blaine County, Sawtooth National Forest, at U.S. Highway 93 crossing and 15 mi northwest of Ketchum.	b18	1962-71c, 1973, 1975-76	8-15-77 9-22-77 10-21-77	a13.6 9.94 a9.67
Big Wood River 13135500	Snake River	Lat 43°47'11", long 114°25'27", in sec.4, T. 5 N., R.17 E., unsurveyed, Blaine County, Sawtooth National Forest, on left bank 0.4 mi upstream from North Fork, 8 mi northwest of Ketchum, and at mile 105.5.	137	1948-71	8-15-77 10-24-77	a55.9 a39.5
N. Fk. Big Wood River 13135520	Big Wood River	NW¼ sec.10, T.5 N., R.17 E., Blaine County, 200 ft above county bridge crossing and across from Sawtooth National Recreation area headquarters.	-	-	8-15-77 10-24-77	a38.4 a15.9
Eagle Creek 13135525	Big Wood River	SW¼ sec.12, T.5 N., R.17 E., Blaine County, 300 ft above Highway 93A crossing and 6 mi northwest of Ketchum.	-	-	8-16-77 10-25-77	a1.04 a .24
Lake Creek 13135530	Big Wood River	NE¼ sec.36, T.5 N., R.18 E., Blaine County, 100 ft above Highway 93A crossing and 3 mi northwest of Ketchum.	-	-	8-16-77 10-25-77	a0 a0
Adams Gulch 13135800	Big Wood River	Lat 43°42'20", long 114°23'50", in SW¼ sec. 2, T.4 N., R.17 E., Blaine County, Sawtooth National Forest, 2.5 mi northwest of Ketchum.	10.9	1962-71c, 1973, 1975-76	8-16-77 9-22-77 10-25-77	ad .05 0 a0
Big Wood River 13136000	Snake River	Lat 43°41', long 114°22', in SE¼ sec.12, T.4 N., R.17 E., Blaine County, 150 ft below bridge crossing of Warm Springs Creek Road.	240	1920-21	8-16-77 10-25-77	a88.9 a62.4

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Big Wood River basin--Continued				
Warm Springs Creek 13137000	Big Wood River	Lat 43°40'58", long 114°24'24", at west sec. line of NW¼SW¼NW¼ sec.14, T.4 N., R.17 E., Blaine County, Sawtooth National Forest, at road crossing, 2.2 mi west of U.S. Highway 93 and State Highway 75 junction in Ketchum, and about 2.3 mi upstream from mouth.	b97	1920-21‡, 1973, 1975-76	8-16-77	a24.8
					9-22-77	30.8
					10-25-77	a23.9
Trail Creek 13137500	Big Wood River	Lat 43°40', long 114°22', in SW¼ sec.18, T. 4 N., R.18 E., Blaine County, 250 ft below Highway 93A crossing.	b67	1920-21	8-16-77	a9.66
					10-25-77	a32.7
E. Fk. Big Wood River 13138000	Big Wood River	NE¼SE¼ sec.8, T.3 N., R.13 E., Blaine County, 0.3 mi upstream from mouth and 6 mi north of Hailey.	-	1920-21	8-16-77	a7.06
					10-25-77	a11.5
Greenhorn Gulch 13138520	Big Wood River	Sec.15, T.3 N., R.17 E., Sawtooth National Forest, 3 mi above mouth and 3 mi north of Hailey.	-	-	8-16-77	a0
					10-26-77	a0
Indian Creek 13138720	Big Wood River	Sec.15, T.3 N., R.18 E., Blaine County. 900 ft downstream from city of Hailey water intake.	-	-	8-17-77	a5.17
Croy Creek 13139520	Big Wood River	NW¼ sec.16, T.2 N., R.18 E., Blaine County, 25 ft upstream from mouth.	-	-	8-17-77	a1.0
					11- 1-77	a .25
Big Wood River 13140500	Snake River	Lat 43°26', long 114°15', on line between secs.12 and 13, T.1 N., R.18 E., and 2.5 mi southwest of Bellevue.	665	1920-21	8-23-77	a0
					10-26-77	a28.4
Rock Creek 13141100	Big Wood River	Lat 43°20'05", long 114°21'30", in SE¼SW¼ SE¼ sec. 13, T.1 S., R.17 E., Blaine County, at State Highway 68 crossing, 3.2 mi west of Stanton Crossing, and 10.9 mi southwest of Bellevue.	-	1975	9- 1-77	a .40
					10-31-77	a3.60
Monument Gulch 13141220	Camas Creek	Lat 43°12'36", long 114°45'09", in NW¼ NE¼NE¼ sec.21, T.2 S., R.12 E., Camas County, 17.2 mi south of Fairfield.	2.07	-	3-22-77	.39
					4-14-77	.19
					5-11-77	.18
					6-14-77	.12
					7-12-77	.07
					8-10-77	.08
					9- 1-77	.09
					9- 9-77	.09
Cow Creek 13141230	Camas Creek	Lat 43°21'00", long 115°06'02", in SE¼ SW¼NW¼ sec.12, T.1 S., R.11 E., Elmore County, at road crossing 0.3 mi above Cow Creek Reservoir at mouth, 4.3 mi northwest of Hill City.	2.86	-	3-22-77	1.12
					4-11-77	.77
					5- 9-77	.52
					6-13-77	.08
					7-11-77	0
					8-10-77	0
					9- 8-77	0
					10-12-77	.01
Chimney Creek 13141250	Camas Creek	Lat 43°23'17", long 114°59'59", in NE¼SW¼ SW¼ sec. 26, T.1 N., R.12 E., Camas County, at culvert on main road next to Chimney Creek ranch, 4.0 mi northwest of Corral.	6.55	-	3-22-77	1.99
					4-11-77	2.27
					5- 9-77	1.79
					6-13-77	1.05
					7-11-77	.81
					8-10-77	.71
					9- 1-77	.78
					9- 8-77	1.01
E. Fk. Corral Creek 13141270	Corral Creek	Lat 43°24'20", long 114°55'24", in NE¼NE¼ SE¼ sec.20, T.1 N., R.13 E., Camas County, at bridge crossing on Hot Springs ranch road, 2.8 mi north of baseline road, 4.5 mi north of Corral.	10.3	-	3-22-77	2.60
					4-13-77	3.89
					5- 9-77	4.28
					6-13-77	2.86
					7-11-77	1.18
					8-10-77	.82
					9- 2-77	1.07
					9- 8-77	.87
Soldier Creek 13141345	Camas Creek	Lat 43°27'52", long 114°48'16", in NE¼NW¼ SE¼ sec.32, T.2 N., R.14 E., Camas County, at bridge crossing on the Allen mine road, 2.6 mi west of Soldier Mountain Ski Resort road, 8.5 mi north of Fairfield.	23.1	-	3-21-77	4.90
					4-12-77	9.09
					5-10-77	12.9
					6-14-77	10.8
					7-12-77	3.47
					8-11-77	1.46
					9- 1-77	2.04
					9- 8-77	.91
					9-10-77	.98

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Big Wood River basin--Continued				
Soldier Creek 13141350	Camas Creek	Lat 43°26'44", long 114°48'27", in NE¼SE¼ SE¼ sec. 5, T.1 N., R.14 E., Camas County, at county bridge, 0.2 mi downstream from Phillips Creek, and 7 mi north of Fairfield.	–	1973-74, 1976	9- 1-77 9-22-77 10-31-77	a1.11 2.95 a3.66
Dairy Creek 13141360	Camas Creek	Lat 43°15'10", long 114°57'26", in SW¼NW¼NE¼ sec.18, T.2 S., R.13 E., Camas County, at road crossing to Dairy Creek ranch, 6.5 mi south of Corral.	5.21	–	3-23-77 4-13-77 5-11-77 6-14-77 7-12-77 8-18-77 9- 9-77	.36 .27 .27 0 0 0 0
McKinney Creek 13141365	Camas Creek	Lat 43°10'37", long 114°45'09", in SE¼NE¼NE¼ sec.35, T.2 S., R.14 E., Camas County, at road crossing, 0.2 mi north of Fir Grove ranch and 11.0 mi southeast of Fairfield.	6.98	–	3-23-77 4-14-77 5-10-77 6-14-77 7-12-77 8-17-77 9-10-77	.13 .09 .14 0 0 0 0
Deer Creek 13141400	Camas Creek	Lat 43°22'06", long 114°43'08", in SW¼SE¼SW¼ sec.31, T.1 N., R.15 E., Camas County, at county road crossing and 4.1 mi northeast of Fairfield.	13.2	1961-71c, 1974	9- 1-77 9-22-77 10-31-77	a0 a0 a0
Elk Creek 13141445	Camas Creek	Lat 43°24'00", long 114°38'06", in SW¼SW¼SE¼ sec.23, T.1 N., R.15 E., Camas County.	–	–	3-21-77 4-12-77 5-10-77 6-14-77 7-12-77 8-12-77 9- 1-77 9- 8-77	1.2 1.2 1.35 .67 .18 .08 .16 .06
Camas Creek 13141450	Big Wood River	NE¼ sec.18, T.1 S., R.16 E., Camas County, at road crossing.	–	–	9- 1-77 10-31-77	ad .05 a1.26
Willow Creek 13141475	Camas Creek	Lat 43°24'44", long 114°34'30", NW¼NW¼NE¼ sec.20, T.1 N., R.16 E., Camas County, at first bridge crossing on Willow Creek road, 2.9 mi north of baseline road, 13.5 mi northeast of Fairfield.	52.9	–	3-22-77 4-12-77 5-12-77 5-19-77 6-14-77 7-13-77 8-12-77 9- 9-77	5.32 9.04 11.9 10.0 14.0 2.88 .35 .12
Willow Creek 13141480	Camas Creek	Lat 43°20'00", long 114°32'40", in sec.15, T.1 S., R.16 E., Camas County, upstream from mouth, and 2.5 mi east of Blaine.	–	–	9- 1-77 10-31-77	a .59 a .64
Camp Creek 13141600	Camas Creek	Lat 43°22'46", long 114°30'54", in NW¼SW¼NE¼ sec.35, T.1 N., R.16 E., Blaine County, along Camp Creek road, 2.0 mi from the end of baseline road, 14.0 mi east of Fairfield.	12.9	–	3-22-77 4-12-77 5-11-77 6-14-77 7-12-77 8-17-77 9- 9-77	1.47 2.62 3.08 .90 0 0 0
Schooler Creek 13145700	Thorn Creek	Lat 43°11'30", long 115°39'25", in SE¼NE¼ sec.3, T.3 S., R.15 E., Gooding County, at State Highway 46 and 18 mi north of Gooding	2.22	1961-76c,	9- 1-77 9-22-77 10-31-77	a0 0 a0
Muldoon Creek 13147300	Little Wood River	Lat 43°34'08", long 113°54'50", in NE¼ sec. 26, T.3 N., R.21 E., Blaine County, at road crossing, 3.0 mi south of Garfield guard station, and 18.5 mi north of Carey.	12.2	1962-71c, 1974,1976	9- 7-77 9-23-77 10-20-77	a .59 .87 a1.15
Little Wood River 13147900	Big Wood River	Lat 43°29'30", long 114°03'15", about center of sec.22, T.2 N., R.20 E., Blaine County, 0.4 mi downstream from Cooper Creek, 0.6 mi above High Five Creek, and 13.5 mi northwest of Carey.	248	1958-1974‡	4-11-77 5-17-77 6-15-77 7-22-77 8-27-77 9-23-77 11- 9-77 12- 5-77	65.2 54.2 133 34.8 29.0 26.8 19.1 107
Fish Creek 13149000	Little Wood River	Lat 43°26'20", long 113°50'30", in sec.2, T.1 N., R.22 E., Blaine County, at Cipolletti weir, 1.2 mi upstream from West Fork Fish Creek, 1.5 mi upstream from Fish Creek Dam, and about 12 mi northeast of Carey.	b32	1904, 1920-39‡, 1973-74, 1976	9-20-77 9-26-77 10-20-77	a2.45 4.67 a2.81

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Big Wood River basin--Continued				
Loving Creek 13150400	Silver Creek	Lat 43°20', long 114°09', in sec.13, T. 1 S., R.19 E., Blaine County, 100 ft below Fish and Game diversion and 2.5 mi southeast of Gannett.	–	1962-63	9- 1-77 11- 1-77 e	a14.5 a28.1
Silver Creek 13150500	Little Wood River	Lat 43°17', long 114°01', in sec.1, T.2 S., R.20 E., Blaine County, 3 mi southeast of Picabo.	b88	1920-62	9- 2-77 11- 1-77	a71.2 a121
Little Wood River 13152000	Big Wood River	Sec.1, T.6 S., R.14 E., Gooding County, below road crossing 1 mi west of Gooding.	-	-	8-31-77 10-31-77	a1.33 a3.01
Malad Springs 13153400	Big Wood River	Lat 42°52', long 114°51'54", Springs head in SE¼ sec.24, T.6 S., R.13 E., Gooding County, and continue to accumulate to the Big Wood River until it enters the right bank of the Snake River at mile 571.2 in NW¼ sec. 34, T.6 S., R.13 E., and 3.0 mi north of Hagerman.	–	1902, 1910-11, 1913,1917, 1919-21, 1924-25, 1946, 1950-59, 1963-64, 1966-69, 1971, 1973-76	11- 4-77	1,285
		Clover Creek basin				
Clover Creek 13154000	Snake River	Lat 43°01'30", long 115°00'20", in SE¼SE¼ sec.34, T.4 S., R.12 E., Gooding County, just downstream from Calf Creek and 6.5 mi northwest of Bliss.	140	1938-43‡, 1957-62‡, 1963-74c, 1976	6- 6-77 7-11-77 8- 1-77 9-16-77 9-19-77	a1.07 a .78 a .48 a1.03 1.12

These footnotes are for pages 502-520.

‡ Operated as a continuous-record station.
a Measurement by Idaho Department of Water Resources.
b Approximately.
c Operated as a crest-stage station.
d Estimated.
e Made at highway crossing downstream.

Discharge measurements made at miscellaneous sites during water year 1977

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft ^{3}/s)
		Kinghill Creek basin				
Kinghill Creek 13155000	Snake River	Lat 43°01', long 115°14', in SW¼ sec.2, T. 5 S., R.10 E., Elmore County, at road bridge 1.5 mi above mouth and 1.75 mi northwest of Kinghill.	83.6	1913, 1938-41	6- 6-77	c1.22
					7-11-77	c1.36
					8- 1-77	c .68
		Little Canyon Creek basin				
Little Canyon Creek 13155300	Snake River	Lat 43°09'14", long 115°19'59", in NE¼NE¼ sec.1, T.3 S., R.10 E., Elmore County, on left bank at county road crossing and 13.8 mi north of Glenns Ferry.	.76	1961-65, 1966-71‡, 1973	6- 6-77	a .35
					7-19-77	a .06
					8- 1-77	a .02
					9-16-77	ad .01
		Bennett Creek basin				
Bennett Creek 13156500	Snake River	Lat 43°13'30", long 115°31'30", in NE¼ sec. 28, T.2 S., R.8 E., Elmore County, 300 ft downstream from Dive Creek, 7.5 mi southwest of Dixie store.	21.3	1938-45	6- 6-77	c0
					7-19-77	c0
					8- 1-77	c0
					9-16-77	c0
		Bruneau River basin				
East Fork Jarbridge River 13162500	Jarbridge River	Lat 42°01'00", long 115°22-20", in SE¼SE¼ sec.14, T.16 S., R.9 E., Owyhee County, on left bank 0.2 mi downstream from Murphy Hot Springs, 2.0 mi upstream from mouth, and 11 mi southwest of Three Creek.	84.6	1928-33‡, 1953-71‡, 1974-76	8- 4-77	c19.7
					9-13-77	11.6
					9-15-77	c11.6
Deadwood Creek 13166500	East Fork Bruneau River	Lat 42°07', long 115°06', sec.19, T.15 S., R.12 E., at Helsley Ranch, and 5.5 mi northeast of Three Creek Post Office.	922	1912-14, 1916	8- 2-77	ce .3
					9-15-77	c .2
East Fork Bruneau River 13167500	Bruneau River	Lat 42°33'25", long 115°30'35", in SE¼SE¼ NW¼ sec.15, T.10 S., R.8 E., Owyhee County, on right bank at Winter Camp Ranch, 20 mi southeast of Hot Springs, and at mile 10.	620	1910-14, 1915, 1948-1970	7-19-77	5.37
					7-20-77	c4.94
					8- 3-77	c3.51
					9-15-77	c5.55
		Sinker Creek basin				
Sinker Creek 13172290	Snake River	Lat 43°03'52", long 116°38'03", in NW¼SE¼NE¼ sec.24, T.4 S., R.3 W., Owyhee County, at Silver City road crossing, 50 ft upstream from Scotch Bob Creek, 6 mi northeast of Silver City, and 11.2 mi southwest of Murphy.	-	1945	8- 3-77	c0
					9-15-77	c0
		Snake River basin				
Snake River 13172850	Columbia River	Lat 43°32'54", long 116°47'57", in NW¼SW¼SE¼ sec.34, T.3 N., R.4 W., Owyhee County, at State Highway 72 crossing at Marsing.	-	1969-1973	11-18-76	12,800
					1-17-77	11,600
					3- 9-77	12,800
					5-11-77	6,680
					7-21-77	4,570
					9- 9-77	5,900

See footnotes on p. 541.

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Succor Creek basin				
Succor Creek 13173000	Snake River	Lat 43°38', long 116°56', SE¼SE¼ sec.5, T. 3 N., R.5 W., Owyhee County, at Highway 19 crossing just west of Homedale.	-	-	7-21-77 8- 2-77 9-26-77	c33.1 c16.6 c67.5
		Jordan Creek basin				
Jordan Creek 13178000	Owyhee River	Lat 43°52'22", long 116°57'12", in SW¼NE¼ sec.29, T.6 S., R.5 W., Boise Meridian, Owyhee County, 1.4 mi downstream from Williams Creek, 3.6 mi upstream from Lone Tree Creek, 4 mi east of the Idaho-Oregon State line, 9 mi southeast of Jordan Valley, and at mile 54.4.	b440	1945-53‡, 1955-71‡	7-21-77 8- 2-77	c8.8 c1.8
		Boise River basin				
Queens River 13184080	Boise River	Lat 43°49'30", long 115°12'15", SW¼SW¼ sec. 29, T.6 N., R.11 E., Elmore County, at mouth and about 4 mi northwest of Atlanta.	-	-	6-23-77 7-25-77 8-17-77	f73.7 f10.4 f8.5
Roaring River 13184200	Boise River	Lat 43°42'20", long 115°27'50", in sec.2, T. 4 N., R.11 E., Elmore County 6 mi upstream from mouth, and 9 mi northwest of Rocky Bar.	23.3	1958, 1963-71, 1973-76	6-23-77 7-25-77 8-17-77	f17.9 f10.4 f8.5
Edna Creek	Crooked River	NW¼SE¼ sec.10. T.7 N., R.7 E., Boise County, Boise National Forest, and 8.8 mi south of Lowman.	-	-	10- 5-76 11- 3-76 3-21-77 4- 6-77 4-19-77 5-23-77 6-29-77 7-11-77 8-22-77 10-18-77 11- 3-77	a2.48 a1.94 a1.76 a2.76 a3.25 a4.55 a2.41 a1.67 a3.57 a1.44 a2.29
Beaver Creek 13184800	North Fork Boise River	Lat 43°58'10", long 115°36'30", in SE¼ sec.3, T.7 N., R.7 E., Boise County, at State Highway 21 junction with road to Beaver Creek guard station, and 7.5 mi south of Lowman.	b9.3	1962-71d, 1975-76	6-27-77 7-19-77 8-10-77 9-27-77	f2.44 f1.20 f1.49 2.29
Sheep Creek 13184955	Boise River	Lat 43°41'45", long 115°39'38", in sec.7, T. 4 N., R.7 E., Boise County, 200 ft upstream from mouth, and 2.5 mi northeast of Twin Springs.	-	1975-76	6-23-77 7-25-77 8-17-77 9-26-77	f19.1 f13.8 f10.8 13.8
Cottonwood Creek 13185500	Boise River	Lat 43°37'56", long 115°49'25", in NW¼NE¼ sec.2, T.3 N., R.5 E., Boise County, at flow line of Arrowrock Reservoir, just downstream from unnamed tributary 0.8 mi downstream from Cottonwood Ranger station, and 5.5 mi northeast of Arrowrock Dam.	21.4	1912, 1914-18‡, 1929, 1939-41‡, 1955,1976	6-28-77 7-18-77 8- 9-77 9-26-77	ef1.9 ef .7 ef .4 e1.9
South Fork Boise River 13185650	Snake River	Lat 43°36', long 114°55', in NW¼ sec.16, T. 3 N., R.13 E., Camas County, 100 ft upstream from Big Smoky Creek, and 21 mi east of Featherville.	-	1957-58	6-22-77 7-25-77 8-15-77 9-29-77	f118 f68.1 f35.6 f26.8
Lime Creek 13186500	South Fork Boise River	Lat 43°25', long 115°16', in SW¼NE¼ sec.17, T.1 N., R.10 E., Elmore County, at road crossing, 1,000 ft upstream from mouth, 3 mi south of Pine, and 12 mi northeast of Bennett.	131	1942, 1945-56‡	6-22-77 7-20-77 8-15-77 9-29-77	f22.4 f10.3 f10.0 f16.1
Fall Creek 13187000	South Fork Boise River	Lat 43°26'00", long 115°23'10", in SE¼ sec. 9, T.1 N., R.9 E., Elmore County, 1.5 mi upstream from Castle Creek, 2 mi upstream from mouth, 5 mi southwest of Pine, and 6 mi northeast of Anderson Ranch Dam.	55.3	1942, 1945-56‡, 1975-76	6-22-77 7-20-77 8-15-77 9-21-77 9-21-77	f15.9 f8.5 f6.7 9.71 f8.7
Rattlesnake Creek 13192500	South Fork Boise River	Lat 43°24', long 115°45', in sec.27, T.3 N., R6 E., Elmore County, at flow line of Arrowrock Reservoir, 0.5 mi upstream from mouth, 7 mi northwest of Lenox, and 10 mi southeast of Arrowrock Dam.	-	-	6-24-77 7-20-77 8-16-77 9-29-77	f7.7 f6.6 f3.9 f8.3

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Boise River basin--Continued				
Grouse Creek 13193500	Boise River	Lat 43°34'40", long 115°54'33", in NW¼SE¼SW¼ sec.19, T.3 N., R.5 E., Elmore County, 400 ft above high flow line of Arrowrock Reservoir and 1.4 mi southeast of Arrowrock Dam.	–	1939-42‡, 1976	6-23-77	ef .15
					7-18-77	ef .04
					8- 9-77	0
					9-26-77	e .7
Deer Creek	Boise River	SE¼SW¼ sec.12, T.3 N., R.4 E., Boise County, Boise National Forest and 0.5 mi north of Arrowrock Dam.	–	–	10-29-76	a .88
					2- 7-77	a1.17
					3-18-77	a1.18
					4- 5-77	a .92
					4-19-77	a .96
					4-26-77	a .90
					5-23-77	a1.61
					6-25-77	a .16
					7-11-77	a .11
					8-30-77	ae .05
					10-18-77	a .24
					12-14-77	a2.40
Bannock Creek 13196500	Mores Creek	Lat 43°48'30", long 115°46'25", in NW¼NW¼ sec. 5, T.5 N., R.6 E., Boise County, Boise National Forest, 0.8 mi upstream from West Fork, at mile 2.0, and 3.2 mi southeast of Idaho City.	5.75	1939-41‡, 1950-71‡, 1975-76	6-28-77	ef .8
					7-18-77	ef .6
					8- 9-77	ef .3
					9-27-77	e .7
Bannock Creek 13196510	Mores Creek	NW¼SW¼ sec.30, T.6 N., R.6 E. Boise County, Boise National Forest, and 1.7 mi east of Idaho City.	–	–	10- 5-76	a1.5
					10-29-76	a1.42
					2-10-77	a1.10
					3-21-77	a1.18
					4- 5-77	a3.24
					4- 7-77	a3.54
					5-23-77	a4.4
					6-29-77	a .65
					7-11-77	a .59
					8-30-77	a1.02
					10- 8-77	a .90
					11- 3-77	a .93
					12-14-77	a4.34
Elk Creek 13198500	Mores Creek	NW¼ sec.26, T.6 N., R.5 E., Boise County, and 0.5 mi northwest of Idaho City.	–	–	4-11-77	13.6
					6-28-77	f5.79
					7-18-77	f2.58
					8- 9-77	f1.65
					10- 4-77	f3.71
Pine Creek 13199600	Grimes Creek	SE¼SW¼ sec.16, T.5 N., R.4 E., Boise County, Boise National Forest, and 9.2 mi southwest of Idaho City.	–	–	10-29-76	a1.49
					2-10-77	a1.44
					3-18-77	a2.05
					4- 5-77	a1.97
					4- 7-77	a2.54
					4-19-77	a1.60
					4-26-77	a1.68
					5-23-77	a4.25
					6-29-77	a .66
					7-11-77	a .52
					8-30-77	a .77
					10- 8-77	a .54
					11- 2-77	a .85
					12-14-77	a10.8
Granite Creek	Grimes Creek	SW¼NW¼ sec.15, T.7 N., R.4 E., Boise County, Boise National Forest, and 1.5 mi east of Placerville.	–	–	6-28-77	ef2.0
					7-18-77	ef1.9
					8- 9-77	ef .6
					10- 4-77	ef1.2
Grimes Creek 13199800	Mores Creek	Lat 43°43'36", long 115°57'09", in SW¼SW¼NW¼ sec.35, T.5 N., R.4 E., Boise County, 200 ft upstream from mouth and 9 mi southwest of Idaho City.	–	1973, 1975-76	6-28-77	f22.2
					7-18-77	f6.26
					8- 9-77	f4.02
					9-27-77	f26.3
Robie Creek 13200500	Mores Creek	Lat 43°37'49", long 115°59'55", in NE¼ sec. 5, T.3 N., R.4 E., Boise County, at mile 0.5, and 5 mi northwest of Arrowrock Dam.	15.8	1950-71‡, 1973, 1975-76	6-28-77	ef1.4
					7-18-77	ef .5
					8- 9-77	ef .2
					9-27-77	e .6
Cottonwood Creek 13204800	Boise River	Lat 43°36'59", long 116°09'30", in NE¼SE¼NW¼ NE¼ sec.12, T.3 N., R.2 E., Ada County, at Shaw Mountain Road crossing, at confluence of left bank unnamed tributary, 0.8 mi downstream from Picket Pin Creek, and 2.0 mi east of State Capitol Building in Boise.	11.7	1959 1973-76d	7- 7-77	f0
					7-28-77	f0
					8-23-77	f0
Boise River North Channel 13206300	Snake River	Lat 43°41'12", long 116°21'12", in SE¼SE¼NE¼ sec.17, T.4 N., R.1 E., Ada County, at Eagle Road crossing, and 0.6 mi south of Eagle.	–	–	8-30-77	f64.0
					9-30-77	f153

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Boise River basin—Continued				
Boise River South Channel 13206305	Snake River	NE¼NE¼ sec.20, T.4 N., R.1 E., Ada County, at Eagle Road crossing, and 1.5 mi south of Eagle.	-	-	8-30-77	f241
					9-30-77	f69.1
Five Mile Creek 13210700	Indian Creek	NE¼NE¼ sec.1, T.3 N., R.1 W., Ada County, at Linder Road crossing, and below Meridian Sewer Treatment Plant.	-	-	8-30-77	f49.3
					9-30-77	f32.2
Wilson Drain 13211315	Indian Creek	NW¼ sec.35, T.4 N., R.3 W., Canyon County, above Highway 30 crossing, and at mouth.	-	-	9- 2-77	f60.0
					10- 5-77	f66.6
Indian Creek 13211340	Boise River	SW¼SW¼ sec.25, T.3 N., R.2 W., Canyon County, just below Amity Avenue.	-	-	9- 2-77	f31.2
					10- 5-77	f31.1
Indian Creek 13211380	Boise River	SE¼SE¼ sec.8, T.3 N., R.2 W., Canyon County, 400 ft below Karcher Road, and below Nampa Sewer Treatment Plant.	-	-	9- 2-77	f67.9
					10- 5-77	f70.4
		Sand Run Gulch basin				
Sand Run Gulch 13213080	Snake River	Lat 43 49'16", long 117 00'47", in NW¼NW¼NW¼ sec.36, T.6 N., R.6 W., Canyon County, 0.5 mi above mouth, and 4.2 mi northwest of Parma.	-	-	7-15-77	74.6
					9- 2-77	f89.6
					10- 5-77	f163
		Payette River basin				
McDonald Creek	Payette River	NE¼NE¼ sec.14, T.9 N., R.9 E., Boise County, Boise National Forest, and 13.5 mi northeast of Lowman.	-	-	3-22-77	a1.92
					4- 6-77	a2.42
					5-24-77	a3.19
					6-23-77	a1.49
					7-12-77	a1.92
					8-31-77	a2.17
					10-19-77	a1.60
Five Mile Creek 13234300	Payette River	Lat 44°06'20", long 115°27'30", in NE¼ sec.24, T.9 N., R.8 E., Boise County, at State Highway 21 crossing, and 8.5 mi east of Lowman.	b7.8	1962-71d, 1973-76	6-27-77	f10.2
					7-19-77	f4.84
					8-10-77	f4.09
					9-27-77	6.60
Archie Creek	Payette River	SE¼NW¼ sec.33, T.9 N., R.8 E., Boise County, Boise National Forest, and 5 mi east of Lowman.	-	-	11- 3-76	a2.56
					2-18-77	a1.73
					3-22-77	a2.28
					4- 6-77	a2.89
					4- 8-77	a3.00
					5- 4-77	a2.70
					5-24-77	a3.43
					6-30-77	a1.48
					7-12-77	a1.81
					8-31-77	a1.84
					10-19-77	a1.70
					11- 9-77	a1.93
					12- 8-77	a2.36
Lick Creek	Payette River	NE¼SW¼ sec.35, T.9 N., R.7 E., Boise County, Boise National Forest, and 1 mi east of Lowman.	-	-	2-18-77	a .63
					3-22-77	a .68
					4- 6-77	a1.15
					4- 8-77	a1.97
					5- 4-77	a .70
					5-23-77	a1.79
					6-30-77	a .47
					7- 7-77	a .27
					8-31-77	a .30
					10-19-77	a .39
					11- 9-77	a .47
					12- 8-77	a1.06
Clear Creek 13234500	Payette River	Lat 44°04'55", long 115°36'40", in SW¼SE¼ sec.27, T.9 N., R.7 E., Boise County, Boise National Forest, at State Highway 21 bridge in Lowman, and 550 ft upstream from mouth.	59.6	1921-22, 1925, 1941-45‡, 1973, 1975-76	6-27-77	f46.8
					7-19-77	f25.1
					8-10-77	f21.1
					9-27-77	32.1
Rock Creek 13235100	Payette River	Lat 44°04'50", long 115°37'30", in NE¼ sec. 33, T.9 N., R.7 E., Boise County, Boise National Forest, at road bridge, and 0.5 mi west of Lowman.	14.6	1961-71d, 1973, 1975-76	6-27-77	f5.61
					7-19-77	f3.91
					8-10-77	f3.60
					9-27-77	5.27
Cabin Creek 13237600	Silver Creek	Lat 44°20'53", long 115°47'21", in NW¼ sec. 30, T.12 N., R.6 E., Valley County, on right bank .2 mi upstream from mouth, 1.2 mi downstream from Silver Creek guard station, and 13 mi east of Smiths Ferry.	.42	1960-67‡, 1973-76	6-30-77	ef .20
					7-28-77	ef .20
					8-24-77	ef .21
					10- 5-77	.07

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
Payette River basin--Continued						
Scriver Creek	Middle Fork Payette River	NW¼ sec.26, T.10 N., R.4 E., Boise County, at County road crossing 4 mi north of Crouch.	-	-	7-28-77	ef4.68
					8-24-77	ef2.86
					10- 4-77	f5.00
Middle Fork Payette River 13237940	Payette River	Lat 44°06', long 116°00', in NW¼ sec.21, T. 9 N., R.4 E., Boise County, at mouth 2 mi west of Garden Valley.	-	1925, 1933	6-30-77	f113.2
					8- 2-77	f93.7
					8-24-77	f65.2
					10- 4-77	f108
Deep Creek 13238300	North Fork Payette River	Lat 45°06'00", long 116°02'18", in NW¼NE¼ SW¼ sec.1, T.20 N., R.3 E., Valley County, Payette National Forest, at forest road crossing, and 13 mi north of McCall.	b .40	1961-71d, 1973, 1975-76	7- 6-77	f .56
					7-13-77	c1.55
					8-11-77	f .18
					8-22-77	f .01
					9-22-77	f6.00
					10-29-77	6.03
North Fork Payette River	Payette River	SW¼ sec.2, T.19 N., R.3 E., Valley County, at road crossing 1 mi above Payette Lake.	-	-	7- 6-77	f59.0
					8- 1-77	f64.4
					8-22-77	f83.1
					10- 6-77	f92.7
Campbell Creek	North Fork Payette River	NW¼NW¼ sec.21, T.13 N., R.3 E., Valley County, and 2.8 mi southwest of Cascade.	-	-	4-15-77	1.75
					7- 7-77	f1.85
					8-22-77	f1.43
					10- 6-77	f1.31
Hazard Creek	North Fork Payette River	NW¼ sec.33, T.14 N., R.3 E., Valley County, and 3.4 mi southwest of Cascade.	-	-	4-15-77	.50
					7- 7-77	f .73
					8-22-77	f .90
					10- 6-77	f .71
Fawn Creek 13245270	North Fork Payette River	NE¼SE¼ sec.11, T.12 N., R.3 E., Valley County, Boise National Forest, and 9.2 mi south of Cascade.	-	-	10- 7-76	a3.31
					11-10-76	a3.28
					2-17-77	a2.56
					3-30-77	a3.03
					4-20-77	a12.9
					4-25-77	a24.2
					4-28-77	a20.7
					5-25-77	a14.7
					7-13-77	a1.37
					9- 1-77	a1.25
					9-27-77	a3.14
					11-10-77	a3.82
Tripod Creek 13245400	North Fork Payette River	Lat 44°17'55", long 116°05'17", in SW¼ sec. 10, T.11 N., R.3 E., Valley County, at State Highway 15 at Smiths Ferry.	8.63	1962-71d, 1973,76d	7- 6-77	ef .47
					8- 2-77	ef .59
					8-22-77	ef .59
					9-27-77	ef .50
					9-27-77	e0.5
Porter Creek 13247000	Payette River	Lat 43°56'00", long 116°11'00", in SE¼NW¼NE¼ sec.14, T.7 N., R.2 E., Boise County, 0.6 mi upstream from mouth and 2 mi south of Gardena.	21.2	1938-45‡, 1974-76	7- 6-77	f0
					7-27-77	f0
					8-23-77	f0
					10- 5-77	1.16
Squaw Creek	Payette River	Lat 44°26', long 116°16', in sec.19, T.13 N., R.2 E., Gem County, just upstream from Cold Springs Creek, 2 mi southeast of Mill Creek Ranger station, and 10 mi north of Gross.	b21	1925-27	6-29-77	f9.33
					7-27-77	f3.60
					8-23-77	f1.12
					10- 7-77	f7.2
Four Mile Creek 13250650	Willow Creek	Lat 44°04'24", long 116°29'13", in SW¼NW¼ sec. 32, T.9 N., R.1 W., Payette County, 300 ft upstream from mouth, and 14 mi north of Emmett.	b6.5	1961-71d, 1975-76	6-29-77	f0
					7-27-77	f0
					8-23-77	f0
Weiser River basin						
Weiser River 13251500	Snake River	Lat 44°56'49", long 116°22'53", in NW¼NE¼ (revised) sec.31, T.19 N., R.1 E., Adams County, on right bank 60 ft downstream from railroad bridge, 0.6 mi south of Tamarack, 1.5 mi upstream from Beaver Creek, and at mile 94.5	36.5	1936-71, 1974-75	6-10-77	c11.4
					7-14-77	c4.69
					8- 9-77	c3.62
					9-21-77	c15.0
Weiser River 13253500	Snake River	Lat 44°51'00", long 116°26'40", in NE¼SW¼ sec.34, T.18 N., R.1 W., Adams County, 200 ft upstream from Warm Springs Creek, 8.5 mi north of Council, and at mile 80.0.	106	1920,1922, 1939-49‡, 1955, 1973-77	6- 9-77	c44.0
					7-14-77	c12.3
					8- 9-77	c12.4
					9-21-77	c17.8
					9-30-77	c42.3
Hornet Creek 13255500	Weiser River	Lat 44°44'47", long 116°28'46", in SW¼SW¼SE¼ sec.5, T.16 N., R.1 W., Adams County, 2.2 mi upstream from mouth, and 2.5 mi northwest of Council.	107	1937-43‡	6- 9-77	c .79
					7-14-77	c .86
					8- 9-77	c .36
					9-20-77	c1.43

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Weiser River basin--Continued				
Weiser River 13256000	Snake River	Lat 44°41'30", long 116°28'10", in sec.28, T. 16 N., R.1 W., Adams County, 0.7 mi downstream from Cottonwood Creek, 2 mi upstream from Middle Fork, and 3.2 mi southwest of Council.	390	1937-43‡	6- 9-77 7-15-77 8- 9-77 9-20-77	c54.2 c62.1 c26.9 c34.4
Middle Fork Weiser River 13256800	Weiser River	Lat 44°38'43", long 116°22'23", in SE¼SE¼SE¼ sec.7, T.15 N., R.1 E., Adams County, at bridge above Fall Creek, and 4.0 mi southeast of Mesa.	59.2	1974	6- 9-77 7-15-77 8- 9-77 9-20-77	c36.8 c11.9 c9.8 c21.0
Johnson Creek 13257600	Weiser River	Lat 44°40'30", long 116°32'06", in NE¼SE¼SE¼ sec.35, T.16 N., R.2 W., Adams County, at bridge crossing, 0.8 mi upstream from mouth and 1.8 mi northeast of Goodrich.	-	1974	6- 8-77 7-15-77 8- 9-77 9-20-77	c8.08 c1.14 c .73 c .99
Goodrich Creek 13257800	Weiser River	Lat 44°29'58", long 116°35'52", in SW¼SE¼NE¼ sec.5, T.15 N., R.2 W., Adams County, at bridge crossing, 2.2 mi northwest of Goodrich, and 2.5 mi above mouth.	15.3	1974	6- 8-77 7-15-77 8- 9-77 9-20-77	c12.9 c1.75 c1.13 c1.64
Rush Creek 13259500	Weiser River	Lat 44°34'15", long 116°40'19", in NE¼NW¼NW¼ sec.11, T.14 N., R.3 W., Washington County, at highway bridge, 0.1 mi southeast of U.S. Highway 95 railroad crossing in Cambridge, and 0.4 mi upstream from Camp Creek.	30.4	1938-43‡, 1955†, 1974	6- 8-77 7-27-77 9-19-77	c14.6 c0 c0
Pine Creek 13260000	Weiser River	Lat 44°35'23", long 116°44'12", in NE¼SE¼ sec.31, T.15 N., R.3 W., 300 ft upstream from West Fork Pine Creek, and 3.4 mi northwest of Cambridge.	54	1938-1960‡, 1960-62‡, 1964-65	6- 8-77 7-22-77 8- 8-77 9-20-77 9-30-77	c12.0 c3.21 c2.05 c1.43 c3.37
West Fork Pine Creek 13260100	Weiser River	Lat 44°35'20", long 116°44'40", in S½ sec.31, T.15 N., R.3 W., 0.5 mi upstream from mouth, and 3.5 mi northwest of Cambridge.	-	-	6- 8-77 7-27-77 8- 8-77 9-20-77	c .72 c1.83 c .85 c2.35
Little Weiser River 13261000	Weiser River	Lat 44°29'22", long 116°23'24", in NW¼SW¼ sec. 6, T.13 N., R.1 E., Adams County, at County road crossing, 2,500 ft upstream from old gage site, 5.2 mi southeast of Indian Valley, and at mile 21.5.	81.9	1920-21‡, 1923-27‡, 1938-71‡, 1973,1976	6- 9-77 7-22-77 8- 9-77 9-20-77 9-30-77	c33.9 c5.88 c1.48 c17.1 24.4
Little Weiser River 13261647	Weiser River	Lat 44°33'41", long 116°41'32", in NE¼SW¼NW¼ sec.15, T.14 N., R.3 W., Washington County, at mouth 0.2 mi upstream from County road crossing over Weiser River, 1.8 mi southwest of Cambridge.	-	-	8- 8-77 9-19-77	c .91 c .10
Keithly Creek 13261880	Weiser River	Lat 44°31'02", long 116°49'53", in SE¼NW¼SW¼ sec.28, T.14 N., R.4 W., Washington County, 8.5 mi southwest of Cambridge.	-	1973-74, 1976	6- 7-77 7-27-77 8- 8-77 9-19-77 10- 4-77	c2.67 c2.47 c3.00 c3.06 2.97
Mann Creek 13266850	Weiser River	Lat 44°24'42", long 116°54'34", in SE¼SW¼SW¼ sec.35, T.13 N., R.5 W., Washington County, at Mann Creek State Park above reservoir, 1.8 mi above Mann Creek Dam, and 10.5 mi northeast of Weiser.	53.5	1974,1975	6- 7-77 7-27-77 9-19-77	c3.64 c .50 c1.87
Weiser River 13268800	Snake River	Lat 44°14'30", long 116°56'40", in SE¼ sec.33, T.11 N., R.5 W., 1 mi east of Weiser, and 1.2 mi upstream from mouth.	b1,660	1935	6- 7-77 9-19-77 7-27-77 8- 8-77	c3.91 c2.43 c8.59 c10.2
Wildhorse River 13289960	Snake River	SW¼ sec.36, T.18 N., R.5 W., Adams County, at bridge crossing to McCormick Park 300 ft upstream of mouth and 1 mi north of Brownlee Dam.	-	-	6- 8-77 7-27-77 8- 8-77 8-23-77 9-19-77	c53.4 c12.7 c8.53 c7.75 c14.0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin				
Beaver Creek 13292400	Salmon River	Lat 43°55'10", long 114°48'48", in NE¼NE¼NE¼ sec.21, T.7 N., R.14 E., Blaine County, at U.S. Highway 93 crossing, about 0.3 mi north of Beaver Creek store, and 23.5 mi southeast of Stanley.	15.0	1962-71d	8-23-77 9-28-77 10-14-77	c .12 .38 c .56
Salmon River 13292500	Snake River	Lat 43 57'57", long 114°48'01", in SW¼NE¼ sec.3, T.7 N., R.14 E., Custer County, 1 mi upstream from Lost Creek and 2.5 mi southeast of Obsidian.	94.7	1940-53‡, 1973, 1975-76	8-26-77 9-28-77 10-14-77	c3.38 28.7 c24.3
Alturas Lake Creek 13293000	Salmon River	Lat 43°56'34", long 114°49'58", in SW¼SW¼ sec.9, T.7 N., R.14 E., Blaine County, Sawtooth National Forest, 1 mi downstream from mouth of Perkins Lake, and 4 mi south of Obsidian.	35.7	1940-53‡, 1973, 1975-76	8-23-77 9-28-77 10-14-77	c9.0 9.68 c9.75
Salmon River 13293800	Snake River	Lat 44°09'50", long 114°53'10", in NE¼ sec. 25, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at U.S. Highway 93 crossing and 4.5 mi southeast of Stanley.	–	1957,1958, 1973, 1975-76	8-24-77 9-28-77 10-14-77	c129 204 c188
Redfish Lake Creek 13293900	Salmon River	Lat 44°09'20", long 114°54'40", in NE¼SW¼NW¼ sec. 35, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at bridge 1.1 mi downstream from store at Redfish Lake and 4.5 mi south of Stanley.	–	1957-59, 1973, 1975-76	8-24-77 9-28-77 10-14-77	c28.3 31.2 c30.6
Valley Creek 13295000	Salmon River	Lat 44°13'21", long 114°55'49", in SE¼NW¼SW¼ sec.3, T.10 N., R.13 E., Custer County, at mile 0.2, 0.5 mi northeast of Stanley, and 0.8 mi southwest of Lower Stanley.	147	1910‡, 1911-13‡, 1921-73‡, 1975-76	8-24-77 9-28-77 10-13-77	c31.9 82.0 c70.4
Salmon River 13295500	Snake River	Lat 44°14'00", long 114°35'01", in SE¼SE¼SE¼ sec.34, T.11 N., R.13 E., Custer County, Challis National Forest, 0.8 mi downstream from Valley Creek, and 1.2 mi northeast of Upper Stanley.	501	1925-61‡, 1973, 1975-76	9-28-77 10-13-77	c327 c327
Yankee Fork Salmon River 13296000	Salmon River	Lat 44°17'15", long 114°43'11", in NE¼SW¼ sec.17, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, at Sunbeam-Custer bridge, 1.8 mi north of Sunbeam, 1.9 mi upstream from mouth, and 12 mi northeast of Stanley.	195	1921-49‡, 1971-73, 1975-76	8-24-77 9-27-77 10-13-77	c45.4 50.4 c48.2
Warm Springs Creek 13297000	Salmon River	Lat 44°14'50", long 114°40'11", in SW¼ sec. 27, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, 160 ft upstream from Robinson Bar bridge, 0.6 mi upstream from mouth, and 13.7 mi west of Clayton.	79	1921-23‡, 1971-73, 1975-76	8-24-77 9-27-77 10-13-77	c40.6 39.0 c41.2
Peach Creek 13297100	Salmon River	Lat 44°15'50", long 114°28'50", in SE¼SW¼ sec. 24, T.11 N., R.15 E., Custer County, Challis National Forest, 12.5 mi west of Clayton.	7.92	1962-71d, 1972-73, 1975-76	9-27-77 10-13-77	2.02 c1.26
Holman Creek 13297300	Salmon River	Lat 44°14'52", long 114°21'43", in SE¼SW¼SW¼ sec.25, T.11 N., R.16 E., Custer County, Challis National Forest, in Holman Creek Campground and 6.5 mi west of Clayton.	6.10	1962-71d, 1972-73, 1975-76	8-25-77 9-27-77 10-13-77	c .24 .32 c .35
South Fork of East Fork Salmon River 13297384	East Fork Salmon River	Lat 43°55'44", long 114°33'15", in SW¼SE¼SE¼ sec. 15, T.7 N., R.16 E. (unsurveyed), Custer County, 100 ft upstream from West Fork, and 24 mi southwest of Clayton.	18.0	1971-74	7-14-77	41.6
East Fork Salmon River 13297400	East Fork Salmon River	Lat 44°00'23", long 114°28'48", in NW¼NW¼SE¼ sec.20, T.8 N., R.17 E., Custer County, at bridge crossing, 1.6 mi downstream from West Pass Creek, and 18 mi south of Clayton.	75.6	1971-74	7-14-77	41.1

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Salmon River basin--Continued				
Germania Creek 13297404	East Fork Salmon River	Lat 44°02'21", long 114°27'40", in SE¼SE¼NW¼ sec.9, T.8 N., R.17 E., Custer County, at bridge crossing, 0.6 mi downstream from Bowery Creek, and 15.5 mi south of Clayton.	48.9	1971-73	7-14-77	31.1
Little Boulder Creek 13297440	East Fork Salmon River	Lat 44°03'30", long 114°23'17", in SE¼SE¼ sec. 33, T.9 N., R.16 E. (unsurveyed), Custer County, at narrow constriction between two meadows, 0.4 mi downstream from unnamed lake, 0.5 mi upstream from mouth of Castle Creek, 0.6 mi west of Baker Lake, 8.5 mi upstream from mouth, and 16.5 mi southwest of Clayton.	2.83	1970-76	6-15-77 7-12-77 8-18-77 9-27-77	17.6 4.18 1.81 1.53
Little Boulder Creek 13297445	East Fork Salmon River	Lat 44°03'36", long 114°32'31", in NW¼SE¼ sec.35, T.9 N., R.16 E. (unsurveyed), Custer County, just below Boulder Chain Lakes Outlet, 6 mi upstream from mouth, and 15.6 mi southwest of Clayton.	9.94	1970-76	6-15-77 7-12-77 8-18-77 9-27-77	36.4 13.3 7.12 5.10
Big Boulder Creek 13297480	East Fork Salmon River	Lat 44°07'47", long 114°31'33", in NW¼NE¼ sec.12, T.9 N., R.16 E. (unsurveyed), Custer County, 0.4 mi upstream from mouth of Jim Creek, 5.2 mi upstream from mouth, and 10 mi southwest of Clayton.	12.7	1970-76	6-14-77 7-12-77 8-18-77 9-27-77	32.7 14.7 9.18 7.11
Jim Creek 13297485	Big Boulder Creek	Lat 44°07'54", long 114°21'43", in SW¼SW¼ sec.1, T.9 N., R.16 E. (unsurveyed), Custer County, 0.2 mi upstream from crossing at Livingston Mill, 0.6 mi upstream from mouth, and 10 mi southwest of Clayton.	53.4	1970-76	6-14-77 7-12-77 8-18-77 9-27-77	3.70 2.16 1.71 1.49
Big Boulder Creek 13297500	East Fork Salmon River	Lat 44°05'58", long 114°26'24", in SW¼NW¼NE¼ sec.15, T.9 N., R.17 E., Custer County, at bridge crossing, 0.4 mi upstream from mouth, and 10 mi southwest of Clayton.	24.7	1926-30‡, 1971-73, 1976	7-13-77 8-25-77 9-27-77	19.1 c13.0 10.2
Lake Creek 13297590	Herd Creek	Lat 44°05'41", long 114°10'52", in NE¼NE¼NE¼ SE¼ sec.23, T.9 N., R.19 E., Custer County, near end of road, 0.5 mi downstream from mouth of Herd Lake, 3.8 mi upstream from mouth, and 15.2 mi southeast of Clayton.	10.4	1973-74	7-15-77	4.96
Herd Creek 13297600	East Fork Salmon River	Lat 44°09'11", long 114°17'54", in SE¼SW¼NE¼ sec.35, T.10 N., R.18 E., Custer County, 500 ft upstream from mouth and 8.8 mi southeast of Clayton.	112	1971-74	7-13-77	30.7
Road Creek 13297670	East Fork Salmon River	Lat 44°10'36", long 115°12'03", SW¼SW¼SE¼ sec.22, T.10 N., R.19 E., Custer County, 0.2 mi upstream from Horse Basin Creek and 11 mi southwest of Clayton.	37.9	1971-74	7-15-77	2.69
Horse Basin Creek 13297680	Road Creek	Lat 44°10'40", long 114°12'07", in NE¼SE¼SW¼ sec.22, T.10 N., R.19 E., Custer County, at mouth on bridge crossing and 11 mi southeast of Clayton.	32.6	1971-74	7-15-77	.16
Bayhorse Creek 13298400	Salmon River	Lat 44°22'53", 114°15'52", in SE¼SW¼NE¼ sec.7, T.12 N., R.19 E., Custer County, 0.5 mi upstream from mouth and 9 mi south of Challis.	-	1973, 1975-76	8-25-77 9-28-77	c1.01 3.54
Garden Creek	Salmon River	NE¼NW¼ sec.32, T.14 N., R.19 E., Custer County, 200 ft upstream from diversion into city water system, and 0.5 mi west of Challis.	-	-	4-12-77	4.95
Challis Creek 13299000	Salmon River	Lat 44°34'20", long 114°18'20" (revised), in sec.2, T.14 N., R.18 E., on left bank 0.1 mi downstream from Eddy Creek, 6 mi northwest of Challis, and 6.7 mi upstream from mouth.	85	1943,1963	8-26-77	23.0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin--Continued				
Morse Creek 13301700	Pahsimeroi River	Lat 44°36'55", long 113°48'25", in SW¼ sec. 24, T.15 N., R.22 E., Custer County, 0.6 mi upstream from mouth of canyon and 5.2 mi east of May.	18.0	1962-71b, 1973-76b	9-14-77 10-11-77	c6.47 c7.03
Pahsimeroi River 13302000	Salmon River	Lat 44°41'23", long 114°02'40", in SE¼NW¼ sec.25, T.16 N., R.20 E., Lemhi County, at old county road bridge, 0.2 mi southeast of Ellis, 10 mi northeast of May, and at mile 0.3.	845	1929-59‡, 1971	9-14-77	c196
Lake Creek 13302180	Salmon River	Lat 45°01'00", long 113°59'38", in NW¼SW¼ sec.33, T.20 N., R.21 E., Lemhi County, Salmon National Forest, 0.2 mi upstream from Williams Lake, 3.2 mi upstream from mouth, and 12 mi southwest of Salmon.	-	1973, 1975-76	9-13-77 9-30-77 10-11-77	c2.12 4.13 c2.21
Pollard Canyon Creek	Salmon River	NE¼NE¼ sec.10. T.21 N., R.21 E., Lemhi County, 40 ft above diversion to city water system, and 2.6 mi west of Salmon.	-	-	4-12-77	1.47
Chipps Creek	Pollard Canyon Creek	NW¼NW¼ sec.11, T.21 N., R.21 E., Lemhi County, 8 ft above diversion to city water system, and 2.6 mi west of Salmon.	-	-	4-12-77	.61
Jesse Creek	Salmon River	NE¼NE¼ sec.2, T.21 N., R.21 E., Lemhi County, 80 ft above diversion to city water system, and 1.8 mi west of Salmon.	-	-	4-12-77	1.22
Middle Fork Salmon River 13308500	Salmon River	Lat 44°24'30", long 115°10'20", in NW¼ sec. 3, T.12 N., R.11 E., Custer County, Challis National Forest, 0.2 mi downstream from Little Beaver Creek, 0.5 mi downstream from confluence of Marsh and Beaver Creeks, 2 mi northwest of Cape Horn, and at mile 110.3.	138	1928-72‡, 1973, 1975-76	7-12-77 8-23-77 9-27-77 9-28-77	c89.7 c52.1 c65.6 75.7
Bear Valley Creek 13209000	Middle Fork Salmon River	Lat 44°25'44", long 115°17'22", in sec.29, T.13 N., R.10 E., Valley County, Boise National Forest, 250 ft downstream from Fir Creek, 3 mi upstream from mouth, and 7 mi northwest of Cape Horn.	b180	1921-61‡, 1973, 1975-76	7-12-77 8-23-77 9-27-77 9-28-77	c89.3 c41.5 c94.7 102
Bear Creek	South Fork Salmon River	NW¼SW¼ sec.24, T.15 N., R.6 E., Valley County, Boise National Forest, at road crossing.	-	-	10- 6-76 11-11-76 2-16-77 3-29-77 4-20-77 4-27-77 5-11-77 5-24-77 7- 1-77 7-12-77 9- 1-77 9-28-77 11-10-77	a1.3 a1.33 a .92 a .85 a2.26 a4.24 a4.42 a8.11 a3.07 a1.92 a1.32 a1.67 a1.69
Warm Lake Creek	Warm Lake	NW¼NE¼ sec.17, T.15 N., R.7 E., Valley County, Boise National Forest.	-	-	10- 6-76 11-10-76 2-16-77 3-29-77 4-20-77 4-27-77 5-16-77 6-30-77 7-12-77 8-31-77 9-28-77 11-10-77	a2.15 a1.74 a1.15 a .82 a2.00 a3.40 a4.35 a2.30 a1.98 a1.99 a1.97 a2.39
South Fork Salmon River 13310500	Salmon River	Lat 44°39'15", long 115°42'05", in NW¼ sec. 11, T.15 N., R.6 E., Valley County, Boise National Forest, 800 ft downstream from Curtis Creek, 1 mi upstream from Warm Lake Creek, 1.5 mi southwest of Knox, and 21 mi northeast of Cascade.	b92	1928-61‡, 1973, 1975-77	7-12-77 8-11-77 9-23-77 9-27-77	c41.4 c24.5 c35.8 39.5

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Salmon River basin--Continued				
Two Bit Creek	South Fork Salmon River	NW¼NW¼ sec.3, T.15 N., R.6 E., Valley County, Boise National Forest, at road crossing.	-	-	10- 7-76	a .54
					11-11-76	a .46
					2-16-77	a .47
					3-29-77	a .44
					4-20-77	a .85
					4-27-77	a1.39
					5-25-77	a1.05
					6-30-77	a .29
					7-13-77	a .28
					9- 1-77	a .35
					9-27-77	a .37
					11-10-77	a .50
East Fork of South Fork Salmon River 13311500	South Fork Salmon River	Lat 44°56'11", long 115°20'10", in NW¼SE¼SE¼ sec.34, T.19 N., R.9 E., Valley County, on boundary between Boise and Payette National Forests, 75 ft downstream from Sugar Creek, 3 mi north of Stibnite, and 25.6 mi upstream from mouth.	42.5	1928-41‡, 1973, 1975-76	7-13-77	c32.3
					8-11-77	c16.9
					9-23-77	c16.2
					9-28-77	24.2
East Fork of South Fork Salmon River 13312000	Salmon River	Lat 44°57'50", long 115°27'30", in NE¼ sec. 27, T.19 N., R.8 E., Valley County, 1.5 mi east of Yellow Pine, 1.5 mi upstream from Quartz Creek, 2 mi downstream from Profile Creek, and 2.8 mi upstream from Johnson Creek.	104	1928-42‡	8-11-77	c56.6
					9-23-77	c48.5
Johnson Creek 13312500	East Fork of South Fork Salmon River	Lat 44°40'56", long 115°32'24", in SW¼NW¼ sec.31, T.16 N., R.8 E., Valley County, Boise National Forest, at Buck Mountain Campground, 0.3 mi upstream from Lunch Creek, 1.0 mi downstream from Bobcat Creek, 1.5 mi north of Landmark Ranger Station, and 20 mi south of Yellow Pine.	54.7	1942-49‡, 1973-76	7-12-77	c17.7
					8-11-77	c8.2
					9-23-77	c12.8
					9-27-77	20.7
Secesh River 13313500	South Fork Salmon River	Lat 45°13'59", long 115°48'36", in SE¼SE¼ NW¼ sec.23, T.22 N., R.5 E., Idaho County, Payette National Forest, at Warren Wagon Road, 0.9 mi upstream from Long Gulch, and 5.8 mi southeast of Burgdorf.	104	1929, 1943-52‡, 1973, 1975-76	7-13-77	c71.9
					8-10-77	c40.6
					9-22-77	c64.4
					9-29-77	156
South Fork Salmon River 13314000	Salmon River	Lat 45°10'30", long 115°34'45", in SE¼SE¼ NE¼ sec.10, T.21 N., R.7 E., Valley County, Payette National Forest, at forest road bridge at South Fork guard station, 1.3 mi upstream from Pony Creek, 1.5 mi downstream from old gage site, 7.8 mi southeast of Warren, and at mile 19.8.	b1,160	1931-43‡, 1948, 1973-75	9-28-77	805
Warren Creek 13314500	Salmon River	Lat 45°16'35", long 115°41'46", in SE¼SE¼ NE¼ sec.3, T.22 N., R.6 E., Idaho County, Payette National Forest, 500 ft downstream from Warren Wagon Road bridge, 0.1 mi downstream from Steamboat Creek, and 1.3 mi northwest of Warren.	b37	1943-50‡, 1973-76	7-13-77	c20.6
					8-11-77	c10.5
					9-22-77	c15.1
					9-29-77	23.7
Long Tom Creek	Salmon River	Lat 45°27'35", long 115°52'30", in SE¼SE¼ SE¼ sec.31, R.5 E., T.25 N., Idaho County, 1 mi upstream along Salmon River from end of Salmon River road and 21 mi east of Riggins.	-	-	4- 6-77	a2.3
					4-28-77	a2.4
					5-10-77	a1.9
					5-12-77	a1.9
					5-26-77	a2.7
					6- 3-77	a1.9
					6- 9-77	a1.7
					6-17-77	a1.9
					6-30-77	a1.7
					9-15-77	a1.6
French Creek 13314960	Salmon River	NE¼ sec.13, T.24 N., R.3 E., Idaho County, at road crossing of Salmon River road and 14 mi east of Riggins.	-	-	7-13-77	c37.2
					8-10-77	c18.9
					9-21-77	c37.7

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin--Continued				
Partridge Creek	Salmon River	Lat 45°24'18", long 116°08'07", in NW¼NW¼ SE¼ sec.19, T.24 N., R.3 E., at road crossing about 10 mi east of Riggins.	-	-	4-12-77	a17.7
					4-28-77	a59.4
					5-12-77	a41.6
					5-23-77	a72.5
					6- 1-77	a82.1
					6- 7-77	a125
					6-14-77	a70.2
					6-23-77	a35.5
					6-30-77	a29.1
					7- 7-77	a25.7
					7-25-77	a21.1
					9-15-77	a9.5
Mud Creek 13315500	Little Salmon River	Lat 44°59'48", long 116°20'54", in NW¼SW¼ sec.9, T.19 N., R.1 E., Adams County, 0.5 mi upstream from Little Mud Creek, and 3.2 mi northeast of Tamarack.	15.1	1937-38‡, 1939-43‡, 1945-59‡, 1961-71d, 1973-76	6-10-77	c1.88
					7-14-77	c .36
					8- 9-77	c .43
					9-21-77	c1.65
					9-29-77	7.8
Little Salmon River 13315800	Salmon River	NE¼ sec.35, T.21 N., R.1 E., sec.35, Idaho County, at Highway 95 road crossing 11 mi north of New Meadows.	-	-	8-10-77	c6.34
Boulder Creek 13316000	Little Salmon River	Lat 45°05'04", long 116°26'54", in NE¼NE¼ SW¼ sec.10, T.20 N., R.1 W., Adams County, Payette National Forest, 125 ft upstream from Yantis ditch, and 8.0 mi northwest of Tamarack.	b6.5	1937, 1938-45‡, 1973-76	6-10-77	c8.42
					7-14-77	c1.96
					8-10-77	c .81
					9-21-77	c1.42
					9-29-77	c2.57
					10- 5-77	1.18
Indian Creek 13316300	Little Salmon River	Lat 45°16'50", long 116°21'12", in SE¼NE¼ NE¼ sec.5, T.22 N., R.1 E., Idaho County, Nez Perce National Forest, at forest road crossing and 2.5 mi south of Pollock.	2.66	1961-71d, 1973-76	6-10-77	ce .10
					7-14-77	ce .30
					8-10-77	ce .30
					9-21-77	ce .30
					10 -6-77	.50
Sheep Creek	Little Salmon River	Lat 45°20'34", long 116°20'50", in NE¼SE¼ SW¼ sec.9, T.23 N., R.1 E., Idaho County, and 2.3 mi north of Pollock.	7.08	-	4-27-77	a6.1
					5- 5-77	a5.4
					5-11-77	a5.9
					5-19-77	a6.4
					5-25-77	a6.9
					6- 1-77	a15.6
					6- 9-77	a14.5
					6-14-77	a8.4
					6-14-77	a8.0
					6-28-77	a4.6
					7- 1-77	a3.3
					7-25-77	a2.5
					9-14-77	a .90
Rapid River 13316390	Little Salmon River	Lat 45°21'05", long 116°23'52", in SE¼NW¼NE¼ sec.12, T.23 N., R.1 W., Idaho County, Nez Perce National Forest, 500 ft above diversion for Rapid River Fish Hatchery, 0.5 mi downstream from Thorn Gulch, 2.8 mi upstream from mouth, and 6.0 mi southwest of Riggins.	-	1948, 1973-76	7- 8-77	a88.7
					7-14-77	c85.1
					8- 3-77	a63.4
					8-10-77	c62.7
					8-29-77	a63.4
					9-21-77	c66.2
					9-26-77	a59.7
					10- 6-77	66.7
					10-20-77	a54.3
					11-16-77	a52.6
Middle Fork John Day Creek	John Day Creek	Lat 45°34'15", long 116°13'40", in NE¼SW¼ NE¼ sec.20, T.26 N., R.2 E., Idaho County, and 4.8 mi northeast of Lucile.	5.92	-	4-29-77	a8.1
					5- 5-77	a7.4
					5-13-77	a7.8
					5-19-77	a6.3
					5-25-77	a10.8
					6- 2-77	a13.8
					6-10-77	a19.4
					6-16-77	a14.3
					6-23-77	a9.8
					6-28-77	a6.7
					7- 6-77	a7.8
					9-14-77	a3.3
South Fork John Day Creek	John Day Creek	Lat 45°34'15", long 116°13'40", in SE¼SW¼ SE¼ sec.20, T.26 N., R.2 E., Idaho County, and 4.7 mi northeast of Lucile.	3.98	-	4-29-77	a1.6
					5- 5-77	a2.0
					5-13-77	a2.1
					5-19-77	a3.4
					5-25-77	a3.7
					6- 2-77	a5.1
					6-10-77	a7.8
					6-16-77	a7.2
					6-23-77	a5.4
					6-28-77	a3.9
					7- 6-77	a3.9
					9-14-77	a1.0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Salmon River basin--Continued						
East Fork John Day Creek	John Day Creek	Lat 45°34'25", long 116°13'45", in SW¼NE¼ SE¼ sec.20, T.26 N., R.2 E., Idaho County, and 4.8 mi northeast of Lucile.	5.71	-	4-29-77 5- 5-77 5-13-77 5-19-77 5-25-77 6- 2-77 6- 8-77 6-16-77 6-23-77 6-28-77 6- 7-77 9-14-77	a4.8 a4.6 a4.7 a4.8 a7.4 a8.6 a15.3 a9.1 a6.2 a6.3 a5.3 a2.4
John Day Creek at Gage	Salmon River	Lat 45°34'30", long 116°14'00", in SE¼SE¼ NW¼ sec.20, T.26 N., R.2 E., Idaho County, and 4.7 mi northeast of Lucile.	-	-	7- 6-77 7- 8-77 8- 3-77 8-29-77 9-26-77 10-20-77	a12.1 a10.0 a6.5 a9.6 a7.3 a6.2
Slate Creek 13316600	Salmon River	Lat 45°38'25", long 116°16'56", in NE¼NW¼ NW¼ sec.36, T.27 N., R.1 E., Idaho County, 200 ft upstream from U.S. Highway 95 bridge 300 ft upstream from mouth, 0.2 mi northwest of Slate Creek, and 8.7 mi south of White Bird.	127	1948, 1973-76	7-10-77 8-10-77 9-23-77 10- 6-77	c64.7 c25.3 c62.9 57.3
White Bird Creek 13317045	Salmon River	Lat 45°47'23", long 116°15'17", in NE¼SE¼ SW¼ sec.6, T.28 N., R.2 E., Idaho County, at private road crossing, 0.2 mi upstream from Magpie Gulch, and 3.0 mi northeast of White Bird.	-	1973-76	7-14-77 8-10-77 9-22-77 9-30-77 10- 6-77	c13.8 c7.1 c27.9 55.2 21.6
Johns Creek 13317200	Salmon River	Lat 45°56'16", long 116°12'03", in SW¼NW¼ SW¼ sec.15, T.30 N., R.2 E., Clearwater County, at farm road on section line, 0.8 mi north of southwest corner sec.15, and 4.0 west of Grangeville.	6.67	1961-72d, 1974-76	6- 7-77 7-19-77 8-23-77	c1.61 c .21 g .23
Deer Creek 13317500	Salmon River	Lat 46°07', long 116°45', in SE¼ sec.18, T. 32 N., R.3. W., on right bank 300 ft downstream from proposed damsite, 0.8 mi downstream from West Fork, 4.5 mi upstream from East Fork, and 11 mi southwest of Winchester.	19.1	1951-56‡	6- 6-77 7-19-77 8-23-77	c4.59 c .87 g .46
Snake River basin						
Tammany Creek 13335245	Snake River	T.35 N., R.5 W., sec.23, NW¼SW¼ near road crossing in Nez Perce County below Lewiston Orchards.	-	-	7-18-77 8-22-77	0 g0
Clearwater River basin						
Falls Creek	Selway River	Lat 46°03'34", long 115°20'15", in SW¼NW¼NE¼ sec.4, T.31 N., R.9 E., Idaho County, Nez Perce National Forest, and 2 mi east of Selway Falls Guard Station.	-	-	7- 8-77	a7.0
Rackcliff Creek 13336450	Selway River	Lat 46°05'05", long 115°29'38" (unsurveyed), Idaho County in Rackcliff Campground, 1.5 mi east of O'Hara Youth Camp, and 8.1 mi east of Lowell.	8.44	1973-76	3-31-77 5-19-77 6- 9-77 7-26-77 8-24-77	7.0 25.8 c15.1 c5.14 g3.80
Johnson Creek	Selway River	Lat 46°06'10", long 115°33'23", in sec.22, T.32 N., R.7 E., Idaho County, Nez Perce National Forest, and 1.2 mi east of Fenn Ranger Station.	-	-	6- 8-77 7- 7-77	a6.8 a1.4
Goddard Creek	Selway River	Lat 46°06'03", long 115°33'32", in NE¼NW¼SE¼ sec.22, T.32 N., R.7 E., Idaho County, Nez Perce National Forest, and .7 mi east of Fenn Ranger Station.	-	-	6- 9-77 7- 7-77	a18.6 a11.2
Elk City Creek	Selway River	Lat 46°06'20", long 115°33'57", in NW¼NE¼NW¼ sec.22, T.32 N., R.7 E., Idaho County, Nez Perce National Forest, and 1 mi northwest of Fenn Ranger Station.	-	-	6- 9-77 7- 6-77	a2.4 a1.6

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin--Continued				
Swiftwater Creek 13336600	Selway River	Lat 46°06'55", long 115°34'21", in SE¼SE¼NE¼ sec.16, T.32 N., R.7 E., Idaho County, Nez Perce National Forest, at mouth at forest road, and 2.5 mi southeast of Lowell.	6.19	1961-71d, 1973-76	6- 8-77 6- 9-77 9- 5-77	a9.5 c5.7 a4.1
Cliff Creek	Lochsa River	Lat 46°30', long 114°42', in SE¼NE¼ sec.34, T.37 N., R.14 E., Idaho County, Clearwater National Forest, and 0.7 mi south of Powell Ranger Station.	-	-	5-10-77 6-30-77 8- 2-77 9-27-77 11- 2-77	a24.8 a8.43 a3.52 a3.17 a5.41
Jay Creek	Lochsa River	Lat 46°30', long 114°44', in SE¼SE¼ sec.30, T. 37 N., R.14 E., Idaho County, Clearwater National Forest, and 1.5 mi southwest of Powell Ranger Station.	-	-	5-10-77 6- 7-77 6-29-77 8- 2-77 9-28-77 11- 2-77	a28.4 a26.2 a4.28 a1.33 a1.94 a3.17
East Fork Papoose Creek 13336650	Lochsa River	Lat 46°32'07", long 114°45'52", in SE¼SW¼NE¼ sec.24, T.37 N., R.13 E., Idaho County, Clearwater National Forest, at forest road and 3 mi northwest of Powell Ranger Station.	b4.51	1961-71d, 1973-76	6- 8-77 7-25-77	c6.80 c3.24
Robin Creek	Lochsa River	Lat 46°30'30", long 114°47'00", in SW¼NE¼ sec. 36, T.37 N., R.13 E., Idaho County, Clearwater National Forest, and 2.2 mi southwest of Powell Ranger Station.	-	-	5-10-77 6-30-77 8- 2-77 9-27-77 11- 2-77	a60.1 a11.4 a3.62 a6.50 a9.34
West Fork Squaw Creek	Lochsa River	Lat 46°32', long 114°56', in NW¼NE¼ sec.19, T.37 N., R.13 E., Idaho County, Clearwater National Forest, and 9 mi northwest of Powell Ranger Station.	-	-	5- 9-77 6- 6-77 6-29-77 9-28-77 11- 1-77	a23.9 a12.7 a6.10 a6.26 a4.97
Cooperation Creek	Warm Springs Creek	Lat 46°27', long 114°52', in NW¼NW¼ sec.20, T.36 N., R.13 E., Idaho County, Clearwater National Forest, and 8.6 mi southwest of Powell Ranger Station.	-	-	5- 9-77 6- 6-77 8- 2-77 9- 2-77 11- 1-77	a19.6 a39.3 a4.44 a3.68 a4.61
Warm Springs Creek 13336800	Lochsa River	Lat 46°28'20", long 114°53'10", in sec.7, T. 36 N., R.13 E. (unsurveyed), Idaho County, Clearwater National Forest, at mouth and 9 mi west of Powell Ranger Station.	b74.7	1911-1924, 1956-59‡, 1973-76	7-25-77	c59.3
Mink Creek	Lochsa River	Lat 46°28', long 114°57', in SW¼SW¼ sec.11, T.36 N., R.12 E., Idaho County, Clearwater National Forest, and 11 mi west of Powell Ranger Station.	-	-	4-24-77 5-10-77 6- 6-77 7-27-77 8-30-77 9-29-77 11- 2-77	a4.45 a2.52 a1.92 a .34 a .88 a .62 a .67
Weir Creek 13336850	Lochsa River	Lat 46°27'31", long 115°02'01", near W¼ cor., sec.13, T.36 N., R.11 E. (unsurveyed), Idaho County, Clearwater National Forest, 200 ft upstream from U.S. Highway 12, and 16 mi west of Powell Ranger Station.	b12.2	1961-71d, 1973-76	6- 8-77 7-25-77	c38.7 c9.03
Ashpile Creek	Lochsa River	Lat 46°27', long 115°30', in SW¼SE¼ sec.15, T.36 N., R.11 E., Idaho County, Clearwater National Forest, and 17.5 mi southwest of Powell Ranger Station.	-	-	4-19-77 4-24-77 6- 2-77 6-27-77 7-27-77 8-30-77 9-23-77 11- 2-77	a .65 a1.59 a .88 a .34 a .12 a .66 a .17 a .20
Fish Creek	Lochsa River	W¼ sec.34, T.35 N., R.7 E., Idaho County, Clearwater National Forest, and 2 mi northeast of Canyon Meadows Guard Station.	-	-	4-14-77 4-15-77 5-24-77 5-31-77 6-15-77 7-12-77 8- 4-77 8-29-77 9-26-77	a9.25 a7.36 a17.6 a10 a5.83 a9.9 a1.19 a2.57 a3.36
Friday Creek	Fish Creek	NW¼ sec.34, T.35 N., R.7 E., Idaho County, Clearwater National Forest, and 2 mi northeast of Canyon Meadows Guard Station.	-	-	4-15-77 5-24-77 6-15-77 8- 4-77 8-29-77 9-26-77	a4.57 a7.59 a3.09 a .86 a1.47 a1.85

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Clearwater River basin--Continued				
Rye Patch Creek	Lochsa River	Lat 46°13', long 115°33', in sec.22, T.33 N., R.7 E., Idaho County, Clearwater National Forest, and 4 mi north of Powell Ranger Station.	-	-	1- 8-77	a1.61
					4-19-77	a2.81
					5- 3-77	a1.52
					5-16-77	a16.9
					5-26-77	a2.02
					6-22-77	a1.01
					7-13-77	a .43
					8-18-77	a .70
					9-23-77	a .74
					10-17-77	a .50
					11- 7-77	a1.34
Pete King Creek	Lochsa River	Lat 46°12', long 115°35', in SE¼SW¼ sec.28, T.33 N., R.7 E., Idaho County, Clearwater National Forest, and 2 mi north of Lowell.	-	-	4-24-77	a60.9
					5- 3-77	a51.6
					5-16-77	a36.3
					5-26-77	a42.8
					6- 8-77	a50
					6-27-77	a14.1
					7-13-77	a12.1
					8-18-77	a5.8
					9-23-77	a17.3
					10-17-77	a12.7
Three Devils Creek	Middle Fork Clearwater River	Lat 46°08', long 115°38', in SE¼SE¼ sec.1, T.32 N., R.6 E., Idaho County, Clearwater National Forest, and 3 mi west of Lowell.	-	-	4-19-77	a .77
					5- 3-77	a .73
					5-16-77	a11.4
					5-26-77	a .82
					6- 8-77	a .96
					6-27-77	a .30
					7-21-77	a .17
					8-18-77	a .16
					9-23-77	a .49
					10-17-77	a .53
Bridge Creek	Middle Fork Clearwater River	Lat 46°08', long 115°39', in SE¼SW¼ sec.1, T.32 N., R.6 E., Idaho County, Clearwater National Forest, and 3.5 mi west of Lowell.	-	-	4-19-77	a3.77
					5- 3-77	a2.97
					5-16-77	a2.13
					5-26-77	a1.40
					6- 8-77	a2.35
					6-27-77	a1.03
					7-21-77	a .40
					8-18-77	a .55
Clear Creek 13337100	Middle Fork Clearwater River	Lat 46°07'56", long 115°57'55", in SE¼NW¼NW¼ sec.10, T.32 N., R.4 E., Idaho County, at county road, 0.1 mi upstream from mouth, 1.5 mi east of Kooskia.	b102	1924, 1962‡, 1968‡, 1971-72‡, 1973-76	6- 9-77	c117
					7-26-77	c32.4
					8-24-77	g18.9
South Fork Red River	Red River	Lat 45°39'03", long 115°24'06", in SE¼NE¼NE¼ sec.25, T.27 N., R. 8 E., Idaho County, Nezperce National Forest, and 5.2 mi southeast of Red River Ranger Station.	-	-	6-29-77	a7.64
West Fork Red River	Red River	Lat 45°39'08", long 115°24'09", in SW¼SE¼NE¼ sec.20, T.28 N., R.10 E., Idaho County, Nezperce National Forest, and 5 mi southeast of Red River Ranger Station.	-	-	6-14-77	a11.14
Trapper Creek	Red River	Lat 45°40'12", long 115°20'10", in sec.15, T.27 N., R.9 E., Idaho County, Nezperce National Forest, and 2.5 mi southeast of Red River Ranger Station.	-	-	6-29-77	a2.3
					7- 7-77	a2.8
					9-20-77	a2.6
Ditch Creek	Red River	Lat 45°44'52", long 115°17'45", in NW¼NW¼SW¼ sec.24, T.28 N., R.9 E., Idaho County, Nezperce National Forest, and 5.4 mi northeast of Red River Ranger Station.	-	-	6-17-77	a1.81
Moose Butte Creek	Red River	Lat 45°40'47", long 115°22'54", in NE¼SW¼NE¼ sec.18, T.27 N., R.9 E., Idaho County, Nezperce National Forest, and 3 mi southwest of Red River Ranger Station.	-	-	6-29-77	a4.1
					8-10-77	a1.0
Siegal Creek	Red River	Lat 45°46'30", long 115°23'00", in SE¼NW¼SE¼ sec.7, T.28 N., R.9 E., Idaho County, Nezperce National Forest, and 4.2 mi southeast of Elk City.	-	-	8-10-77	a .96
					9-15-77	a1.1
Red Horse Creek 13337200	Red River	Lat 45°47'39", long 115°23'59", in SW¼SW¼NW¼ sec.6, T.28 N., R.9 E. (unsurveyed), Idaho County, Nezperce National Forest, 75 ft upstream from Elk City-Dixie road and 3.0 mi southeast of Elk City.	9.13	1961-71d, 1973, 1975-76	6-30-77	c3.50
					7-20-77	c1.69

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Clearwater River basin--Continued				
Linber Lake	American River	Lat 42°55'48", long 115°27'42", in NW¼SW ¼NE¼ sec.21, T.30 N., R.8 E., Idaho County, Nezperce National Forest, and 8.2 mi north of Elk City.	-	-	10-17-77	a .04
Flint Creek	East Fork American River	Lat 45°54'02", long 115°25'47", in NE¼SE¼SW¼ sec.35, T.30 N., R.8 E., Idaho County, Nezperce National Forest, and 5.2 mi north of Elk City.	-	-	10-22-77	a2.4
American River	South Fork Clearwater River	Lat 45°53'07", long 115°25'30", in SW¼SW¼NE¼ sec.3, T.29 N., R.8 E., Idaho County, 4 mi north of Elk City.	-	-	5- 6-77	a56
					5-12-77	a50.7
					5-19-77	a25.8
					5-27-77	a38.7
					5-31-77	a31.8
					6-16-77	a17.1
					6-28-77	a10.4
					8- 1-77	a5.9
					8- 8-77	a3.6
					9-29-77	a15.9
American River	South Fork Clearwater River	Lat 45°48'40", long 115°25'57", in SW¼NW¼NE¼ sec.35, T.29 N., R.8 E., Idaho County, 1 mi south of Elk City.	-	-	5- 6-77	a133
					5-13-77	a90.4
					5-20-77	a138
					5-27-77	a103
					6-16-77	a55.3
					6-28-77	a26.7
					8- 1-77	a11.3
					8- 8-77	a8.7
Little Elk Creek	Elk Creek	Lat 45°53'45", long 115°29'49", in SE¼NE¼SW¼ sec.32, T.30 N., R.8 E., Idaho County, Nezperce National Forest, and 5 mi northwest of Elk City.	-	-	5-31-77	a3.7
					10-17-77	a .48
Buffalo Gulch	American River	Lat 45°49'09", long 115°27'47", in SW¼NW¼SW¼ sec.27, T.29 N., R.8 E., Idaho County, 1.3 mi west of Elk City.	-	-	5- 5-77	a5.5
					5-13-77	a3.6
					5-19-77	a3.9
					5-27-77	a4.2
					6-16-77	a1.5
					6-28-77	a .74
					8- 1-77	a .26
					8- 8-77	a .17
					9-29-77	a1.9
Maurice Creek	South Fork Clearwater River	Lat 45°49'46", long 115°30'00", in SE¼SW¼SW¼ sec.20, T.20 N., R.8 E., Idaho County, 3 mi west of Elk City.	-	-	5- 5-77	a1.8
					5-13-77	a1.3
					5-20-77	a1.9
					5-27-77	a1.7
					6-16-77	a0.4
					6-28-77	a0.5
					8- 1-77	a .05
					8- 8-77	a .10
					9-29-77	a .77
Whiskey Creek	South Fork Clearwater River	Lat 45°49'47", long 115°30'03", in SE¼SW¼SW¼ sec.20, T.29 N., R.8 E., Idaho County, 3 mi west of Elk City.	-	-	5- 5-77	a5.3
					5-13-77	a5.1
					5-20-77	a4.3
					5-27-77	a3.8
					6-16-77	a1.3
					6-28-77	a .87
					8- 1-77	a .40
					8- 8-77	a .36
					9-19-77	a1.29
South Fork Clearwater River 13337500	Clearwater River	Lat 45°49'30", long 115°31'36", in NE¼ sec. 25, T.29 N., R.7 E., on right bank just upstream from bridge on road to Orogrande, 0.2 mi upstream from Crooked River, 4.5 mi west of Elk City and at mile 58.6.	-	1944-65‡	7-20-77	c75.3
Crooked River	South Fork Clearwater River	SW¼ sec.36, T.28 N., R.7 E., Idaho County, Nezperce National Forest, and 9 mi southwest of Elk City.	-	-	7-20-77	c20.9
Relief Creek	Crooked River	Lat 45°45'00", long 115°30'00", in SW¼NW¼SE¼ sec.19, T.28 N., R.8 E., Idaho County, Nezperce National Forest, and 6.5 mi southwest of Elk City.	-	-	8-10-77	a3.06
					10- 4-77	a3.28

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin--Continued				
Moose Creek	South Fork Clearwater River	Lat 45°49'44", long 155°34'40", in NW¼SE¼SE¼ sec.22, T.29 N., R.7 E., Idaho County, Nezperce National Forest, and 6.7 mi west of Elk City.	-	-	5-10-77	a .34
Upper Newsome Creek	South Fork Clearwater River	Lat 45°55'48", long 115°38'20", in sec.19, T.30 N., R.7 E., Idaho County, Nezperce National Forest, and 2.5 mi northwest of Newsome Guard Station.	-	-	6- 6-77 6-15-77 6-21-77 6-27-77	a17.1 a15.9 a10.9 a5.08
Haysfork Creek	Newsome Creek	Lat 45°55'46", long 115°38'20", in SE¼NE¼NE¼ sec.19, T.30 N., R.7 E., Idaho County, Nezperce National Forest, and 2.3 mi northwest of Newsome Guard Station.	-	-	6- 6-77 6-15-77 6-21-77 6-27-77 10- 6-77	a7.3 a6.44 a4.6 a3.58 a2.72
Baldy Creek	Newsome Creek	Lat 45°54'30", long 115°38'00", in sec.30, T.30 N., R.7 E., Idaho County, Nezperce National Forest, 1.3 mi northwest of Newsome Guard Station.	-	-	6-15-77 6-21-77 6-30-77 8-11-77 10- 5-77	a14.8 a5.6 a4.0 a1.6 a2.82
West Fork Newsome Creek	Newsome Creek	Lat 45°52'00", long 115°37'00", in SE¼SE¼NW¼ sec.8, T.29 N., R.7 E., Idaho County, Nezperce National Forest, and 2 mi south of Newsome Creek Guard Station.	-	-	6-17-77 6-21-77 6-27-77 7- 6-77 8-10-77 10- 5-77	a7.91 a6.9 a5.0 a3.6 a1.64 a2.33
Newsome Creek	South Fork Clearwater River	Lat 45°49'30", long 115°37'00", in sec.20, T.29 N., R.7 E., Idaho County, Nezperce National Forest, and 3.3 mi northeast of Golden.	-	-	10- 6-77	a11.4
Leggett Creek 13337540	South Fork Clearwater River	Lat 45°49'36", long 115°37'35", (unsurveyed), Idaho County, at mouth, at State Highway 14 crossing, 2.8 mi northwest of Golden, and 13 mi west of Elk City.	-	1973-76	5-18-77 6-10-77 6-30-77 7-20-77 8-25-77	23.2 c12.1 c4.71 c3.18 g3.94
Rainy Day Creek	South Fork Clearwater River	Lat 45°48'30", long 115°41'30", in sec.34, T.29 N., R.6 E., Idaho County, Nezperce National Forest, and 0.8 mi southwest of Golden.	-	-	6-15-77 6-21-77 6-27-77 10- 5-77	a1.25 a .75 a .68 a .36
Peasley Creek 13337700	South Fork Clearwater River	Lat 45°49'05", long 115°49'01", in SE¼ sec. 27, T.29 N., R.5 E., (unsurveyed), Idaho County, Nezperce National Forest, at State Highway 14 and 6.6 mi west of Golden.	14.2	1962-71d, 1973, 1975-76d	5-18-77 6-10-77 6-30-77	24.7 c15.7 c8.3
Johns Creek	South Fork Clearwater River	Lat 45°49'26", long 115°53'17", in NW¼NE¼SW¼ sec.30, T.29 N., R.5 E., Idaho County, Nezperce National Forest, and 9.7 mi west of Golden.	-	-	7- 6-77 8- 2-77 9- 1-77 10- 6-77	a106 a27.6 a52.1 a65.4
Meadow Creek	South Fork Clearwater River	Lat 45°49'44", long 115°55'40", in NW¼NE¼NW¼ sec.26, T.29 N., R.4 E., Idaho County, Nezperce National Forest, and 11.2 mi southeast of Grangeville.	-	-	6-30-77	a9.8
Mill Creek	South Fork Clearwater River	Lat 45°49'47", long 115°55'55", in SW¼NW¼SE¼ sec.26, T.29 N., R.4 E., Idaho County, Nezperce National Forest, 11 mi southeast of Grangeville.	-	-	6-30-77	a11.1
Sally Ann Creek 13338200	South Fork Clearwater River	Lat 46°00'40", long 115°57'40", in SE¼ sec. 21, T.31 N., R.4 E., Idaho County, at State Highway 13 and 5.8 mi south of Stites.	13.9	1961-71d, 1973, 1975-76	6- 9-77 7- 6-77 7-21-77	c8.96 c1.10 c .66
Three Mile Creek 13338240	South Fork Clearwater River	SE¼ sec.8, T.30 N., R.3 E., Idaho County, and just downstream from municipal sewer plant.	-	-	7-21-77 8-25-77	c .06 g1.36
Cottonwood Creek 13338290	South Fork Clearwater River	NE¼ sec.9, T.31 N., R.1 E., Idaho County, just below sewer outfall from municipal plant.	-	-	7-19-77 8-25-77	c .10 g .21
Cottonwood Creek	South Fork Clearwater River	SE¼SE¼ sec.29, T.32 N., R.3 W., Idaho County, 30 ft above mouth and .6 mi south of Stites.	-	-	7-26-77 8-24-77	c1.62 g1.68
West Fork Lawyer Creek 13338700	Lawyer Creek	Sec.4, T.33 N., R.1 W., Lewis County, about 1,000 ft below sewer lagoon.	-	-	7-19-77 8-23-77	c .08 g0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin--Continued				
Lawyers Creek 13338800	Clearwater River	Lat 46°09'48", long 116°14'24", in NW¼NW¼ sec.32, T.33 N., R.2 E., Idaho County, Nezperce Indian Reservation, upstream from Highway 7 bridge, 5.0 mi south of Nezperce, and at mile 15.6.	150	1967	6- 7-77	c8.21
					6-29-77	c2.46
					7-21-77	c2.51
					8-24-77	g3.0
Camp Creek	Yoosa Creek	Lat 46°20', long 115°30', in NE¼SE¼ sec.1, T.35 N., R.6 E., Idaho County, Clearwater National Forest, and 5 mi northeast of Musselshell Guard Station.	-	-	5- 2-77	a29.8
					5-31-77	a15.1
					6-20-77	a10.89
					7-18-77	a6.19
					9- 8-77	a2.24
					10-31-77	a7.10
Relaskop Creek	Yoosa Creek	Lat 46°24', long 115°39', in NW¼NE¼ sec.12, T.35 N., R.6 E., Idaho County, Clearwater National Forest, and 4.5 mi northeast of Musselshell Guard Station.	-	-	5- 2-77	a6.73
					5-31-77	a3.02
					6-20-77	a2.04
					7-18-77	a .56
					9- 8-77	a .45
					10-31-77	a .57
Four Bit Creek	Eldorado Creek	Lat 46°10', long 115°30', in SE¼ sec.12, T. 34 N., R.6 E., Idaho County, Clearwater National Forest, and 6.2 mi southeast of Musselshell Guard Station.	-	-	4-18-77	a5.08
					4-27-77	a6.97
					5-11-77	a4.34
					5-20-77	a7.56
					6- 9-77	a1.68
					7- 1-77	a .99
					8-19-77	a .11
					9-20-77	a1.0
					10-12-77	a1.09
Lunch Creek	Eldorado Creek	Lat 46°10', long 115°30, in SE¼SE¼ sec.14, T.34 N., R.6 E., Idaho County, Clearwater National Forest, and 6.5 mi southeast of Musselshell Guard Station.	-	-	4-18-77	a1.84
					5-20-77	a4.31
					6- 9-77	a .50
					7- 1-77	a .19
					8-19-77	a .12
					10-12-77	a .44
Trout Creek	Eldorado Creek	Lat 46°10', long 115°40', in SW¼SW¼ sec.23, T.34 N., R.6 E., Idaho County, Clearwater National Forest, and 7 mi southeast of Musselshell Guard Station.	-	-	4-18-77	a2.89
					5-20-77	a5.96
					6- 9-77	a1.88
					7-18-77	a2.33
					8-19-77	a .23
					10-12-77	a .48
					10-25-77	a4.60
Fan Creek	Eldorado Creek	Lat 46°40', long 115°40', in NW¼SE¼ sec.27, T.34 N., R.6 E., Idaho County, Clearwater National Forest, and 7.5 mi southeast of Musselshell Guard Station.	-	-	4-18-77	a5.36
					4-28-77	a5.27
					5-20-77	a8.52
					6- 9-77	a3.26
					7- 1-77	a1.41
					8-19-77	a .97
					9-20-77	a1.52
					10-12-77	a1.50
Lolo Creek 13339500	Clearwater River	Lat 46°22'30", long 116°08'30", in SW¼ sec. 13, T.35 N., R.2 E., on line between Clearwater and Idaho County, 300 ft downstream from power plant of Nezperce Co., and 1.5 mi south of Greer.	243	1912-13‡, 1964,1973, 1975-76	5-25-77	a384
					5-31-77	a305
					6- 3-77	a259
					6- 6-77	a216
					6- 8-77	a383
					6-13-77	a186
					6-16-77	c143
					6-17-77	a157
					6-24-77	a94.7
					7- 1-77	a83.3
					7-13-77	a64.8
					7-22-77	a61.2
					8- 5-77	a35.4
					8-25-77	a40.0
					9-18-77	a39.0
Grasshopper Creek 13339570	Jim Ford Creek	NE¼ sec.36, T.36 N., R.5 E., Clearwater County, below sewer lagoons 0.8 mi below Timberline High School.	-	-	7-27-77	c .21
Jim Ford Creek 13339580	Clearwater River	NW¼ sec.10, T.35 N., R.4 E., Clearwater County, just below outfall from Weippe sewer lagoons.	-	-	7-27-77	c .18
Jim Ford Creek 13339600	Clearwater River	Lat 46°26'30", long 116°12'30", in NE¼ sec.28, T.36 N., R.2 E., Clearwater County, at road bridge near mouth, and 3.5 mi southeast of Orofino.	-	1953-1961, 1964	6-10-77	c23.8
					7-28-77	c1.09

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin--Continued				
Canal Gulch Creek 13339700	Orofino Creek	Lat 46°29'50", long 115°47'30", in SE¼SE¼NW¼ sec. 2, T.36 N., R.5 E., Clearwater County, at Pierce Ranger Station and 0.5 mi north of Pierce.	5.9	1961-71d, 1973-76	5-17-77	e58.0
					6-16-77	c4.84
					7- 7-77	c2.42
					7-27-77	c1.87
					8-13-77	e1.0
Orofino Creek 13339750	Cleawater River	Lat 46°30', long 115°49', in SE¼ sec.34, T. 37 N., R.5 E., Clearwater County, 0.5 mi northwest of Pierce.	-	-	7-27-77	c21.6
Quartz Creek 13339755	Orofino Creek	Lat 46°34', long 115°51', in sec.5, T.37 N., R.5 E., Clearwater County, and 5 mi northwest of Pierce.	-	-	7-27-77	c .21
Deer Creek 13339900	Whiskey Creek	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T.36 N., R.2 E., Clearwater County, at dirt road and 3.0 mi east of Orofino.	b6.8	1962-71d, 1973-76d	5-17-77	e4.0
					6-16-77	c .06
					7-26-77	c0
Whiskey Creek 13339910	Orofino Creek	Lat 46°30', long 116°12', sec.3, T.36 N., R. 2 E., Clearwater County, at road crossing 2.5 mi east of Orofino.	-	-	7-26-77	c .40
					8-13-77	c0
Orofino Creek 13339950	Clearwater River	Lat 46°29', long 116°13', in NE¼NE¼ sec.8, T.36 N., R.2 E., Clearwater County, and 1.7 mi upstream from mouth.	-	1948,1961, 1964	6-16-77	c73.1
					7- 6-77	c37.3
					7-26-77	c42.7
Cool Creek	Cold Springs Creek	Lat 46°40', long 115°10', in NE¼SE¼ sec.4, T.39 N., R.9 E., Clearwater County, Clearwater National Forest, and 3 mi northwest of Kelley Creek Ranger Station.	-	-	4-28-77	a36.84
					6- 1-77	a22.49
					6-28-77	a6.75
					7-26-77	a4.84
					8-25-77	a2.84
					10-18-77	a2.85
Ice Creek	Cold Springs Creek	Lat 46°40', long 115°10', in NW¼NE¼ sec.10, T.39 N., R.9 E., Clearwater County, Clearwater National Forest, and 2.2 mi northwest of Kelley Creek Ranger Station.	-	-	4-28-77	a7.83
					6- 1-77	a8.10
					6-28-77	a4.49
					7-26-77	a2.51
					8-25-77	a1.22
					10-18-77	a2.72
Wolf Creek	Quartz Creek	Lat 46°40', long 115°20', in NW¼NW¼ sec.8, T.40 N., R.9 E., Clearwater County, Clearwater National Forest, and 10 mi east of Canyon Ranger Station.	-	-	4-23-77	a60
					5- 5-77	a50
					5-25-77	a24.7
					6-23-77	a12.8
					8-17-77	a4.45
					10-13-77	a6.0
Cougar Creek	Quartz Creek	Lat 46°10', long 115°20', in NW¼NW¼ sec.19, T.40 N., R.9 E., Clearwater County, Clearwater National Forest, and 9 mi east of Canyon Ranger Station.	-	-	4-23-77	a41.03
					5- 5-77	a27.79
					5-25-77	a20.6
					6-23-77	a10.57
					8-17-77	a2.20
					10-13-77	a2.99
Sheep Mountain Creek	East Fork Beaver Creek	Lat 46°40', long 115°30', in NW¼NW¼ sec.6, T.39 N., R.7 E., Clearwater County, Clearwater National Forest, and 5.5 mi southwest of Canyon Ranger Station.	-	-	4-20-77	a3.45
					4-29-77	a4.50
					5-18-77	a3.96
					6-10-77	a2.20
					6-23-77	a2.30
					7-15-77	a1.00
					7-28-77	a1.11
					8-17-77	a .68
					9-22-77	a1.58
Sousi Creek	Beaver Creek	Lat 46°40', long 115°30', in SW¼NW¼ sec.24, T.40 N., R.6 E., Clearwater County, Clearwater National Forest, and 4 mi southeast of Canyon Ranger Station.	-	-	4-29-77	a4.04
					5-18-77	a3.97
					6-10-77	a4.86
					6-23-77	a2.37
					7-15-77	a2.05
					7-28-77	a2.24
					8-17-77	a2.14
					9-22-77	a4.93
					10-13-77	a3.32
Rocky Run	Litte North Fork Clearwater River	Lat 47°03'00", long 115°50'00", NW¼ sec.28, T.43 N., R.5 E., Shoshone County, St. Joe National Forest, and 14.5 mi south of Avery.	-	-	5-10-77	a34
					5-23-77	a26
					5-31-77	a21
					6- 6-77	a36
					6-17-77	a18
					6-29-77	a9
					7-17-77	a7
					8- 7-77	a4
					8-28-77	a4

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin--Continued				
Adair Creek	Little North Fork Clearwater River	Lat 47°05', long 115°48', in SW¼SW¼ sec.11, T.43 N., R.5 E., Shoshone County, St Joe National Forest, and 12 mi south of Avery.	-	-	5- 9-77	a19
					5-17-77	a15
					5-31-77	a14
					6- 6-77	a11
					6-17-77	a10
					6-29-77	a7
					7-17-77	a8
					8- 7-77	a5
					8-28-77	a5
Little North Fork Clearwater River	North Fork Clearwater River	Lat 47°04', long 115°48', SE¼NE¼ sec.15, T.43 N., R.5 E., Shoshone County, St. Joe National Forest, and 12.5 mi south of Avery.	-	-	5- 9-77	a261
					5-23-77	a245
					5-31-77	a133
					6- 6-77	a198
					6-17-77	a101
					6-29-77	a50
					7-17-77	a35
					8- 7-77	a21
					8-28-77	a22
North Fork Reeds Creek 13340850	North Fork Clearwater River	SE¼ sec.15, T.38 N., R.3 E., Clearwater County, Clearwater National Forest, and 0.5 mi northwest of Headquarters.	-	-	7-27-77	c1.89
Elk Creek	North Fork Clearwater River	Lat 46°47'13", long 116°10'22", in SE¼NE¼NW¼, sec.26, T.40 N., R.2 E., Clearwater County, 0.1 mi downstream from Christianson Meadows Creek, 0.3 mi downstream from Christianson Meadows Creek Road, 0.1 mi upstream from old city intake, 0.5 mi upstream from Elk Creek Reservoir at Elk River.	40.2	-	8- 8-77	10.1
Elk Creek 13340875	North Fork Clearwater River	SE¼ sec.35, T.40 N., R.2 E., Clearwater County, 500 ft below road bridge 1.5 mi below Elk River.	-	-	8-4-77	c10.6
					9-17-77	c13.6
Cold Springs Creek 13341100	Big Canyon Creek	Lat 46°14'10", long 116°31'06", in NE¼ sec.1, T.33 N., R.2 W., Lewis County, at U.S. Highway 95, and 2.7 mi west of Craigmont.	8.07	1961-71d, 1973, 1975-76d	6- 7-77	c .12
					6-29-77	c .07
					7-19-77	c .03
					8-23-77	g .03
Long Hollow Creek 13341130	Little Canyon Creek	SW¼ sec.30, T.34 N., R.1 E., Lewis County, below sewer lagoons.	-	-	7-21-77	c0
					8-24-77	g .01
Big Canyon Creek 13341140	Clearwater River	Lat 46°29', long 116°25', in sec.11, T.36 N., R.1 W., at county road bridge just upstream from Peck.	225	1965	6-16-77	c14.3
					7- 7-77	c8.13
					7-28-77	c6.95
Cottonwood Creek 13341145	Clearwater River	NE¼ sec.4, T.36 N., R.3 W., Nezperce County, 30 ft above mouth.	-	-	6-18-77	c1.26
Potlatch River 13341150	Clearwater River	Lat 46°51'30", long 116°24'00", in SW¼NE¼ sec. 36, T.41 N., R.1 W., at State Highway 8, 0.2 mi west of Bovill.	-	1963-67	6-15-77	c7.91
					7-11-77	c7.95
					8- 4-77	c .50
					9-17-77	c1.29
Bloom Creek 13341300	East Fork Potlatch River	Lat 46°51'30", long 116°17'30", in NE¼ sec.35, T.41 N., R.1 E., Clearwater County, 200 ft upstream from mouth, and 4.8 mi east of Bovill.	3.66	1959-71‡, 1973-75	7-11-77	c .87
					8- 4-77	c .55
					9-17-77	c1.08
East Fork Botlatch River 13341400	Potlatch River	Lat 46°50'08", long 116°23'26", in SW¼SW¼ sec. 6, T.40 N., R.1 E., Latah County, 60 ft upstream from highway bridge, and 1.5 mi south of Bovill.	41.6	1959-71‡, 1973, 1975-76d	6-15-77	c21.4
					7-11-77	c5.98
					8- 4-77	c4.62
					9-17-77	c12.0
West Fork Little Bear Creek 13341470	Big Bear Creek	SW¼ sec.7, T.39 N., R.3 W., Latah County, below sewer outfall and at Troy.	-	-	7-28-77	c .02
					9- 8-77	c .04
Big Meadow Creek 13341475	West Fork Little Bear Creek	SE¼ sec.7, T.39 N., R.3 W., Latah County, at road crossing on State Highway 8, and at Troy.	-	-	7-28-77	c0
					8- 4-77	c0
					9- 8-77	c0
Big Bear Creek 13341480	Potlatch River	Lat 46°38'10", long 116°39'40", in NW¼SE¼ sec.13, T.38 N., R.3 W., at county road crossing 0.3 mi upstream from Little Bear Creek, and 1 mi northwest of Kendrick.	-	1963-67	6-15-77	c .89
					7-28-77	c0
					8- 1-77	c0
					9- 1-77	c .28

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Clearwater River basin--Continued				
Potlatch River 13341500	Clearwater River	Lat 46°36'50", long 116°39'40", in SE¼NE¼NW¼ sec.25, T.38 N., R.3 W., Latah County, at Mill Street bridge in Kendrick.	425	1946-60‡, 1961-71, 1974-76	6-15-77 7-28-77 9- 1-77	c34.3 c20.2 c31.4
Potlatch River 13341580	Clearwater River	SE¼ sec.7, T.36 N., R.3 W., Nezperce County, 200 ft upstream from mouth.	-	-	7-18-77 9- 1-77	c7.54 c41.4
Lapwai Creek 13341750	Clearwater River	SW¼ sec.32, T.36 N., R.2 W., Lewis County, Nezperce Indian Reservation, 0.3 mi northwest of Winchester.	-	-	7-19-77	c1.34
Mission Creek 13342000	Lapwai Creek	Lat 46°11'20", long 116°38'49", in SW¼NE¼ sec.24, T.33 N., R.3 W., Lewis County, at county road crossing and 4.0 mi southwest of Winchester.	b16	1940-45‡, 1948,1956, 1973, 1975-76	6- 7-77 6-28-77 7-19-77	c2.20 c .93 c .48
Mission Creek 13342050	Lapwai Creek	NE¼ sec.20, T.35 N., R.3 W., Nezperce County, at High 95 crossing, and 3.5 mi east of Culdesac.	-	-	7-18-77 8-23-77	c1.17 g .20
Lapwai Creek 13342150	Clearwater River	Lat 46°21'28", long 116°46'01", in NE¼SW¼SW¼ sec.19, T.35 N., R.3 W., Nezperce County, at bridge, 400 ft downstream from Thiessen Gulch, 1.9 mi upstream from Sweetwater Creek, and 1.7 mi southeast of Sweetwater.	-	1973, 1975-76	6- 7-77	c12.8
Twenty-one Ranch Spring 13342200	Sweetwater Creek	Lat 46°14', long 116°51', in sec.4, T.33 N., R. 4 W., in Spring shelter 1 mi north of Waha, and 15 mi southeast of Lewiston.	-	1958-60‡	6- 6-77 6-28-77 7-18-77 8-23-77	c2.76 c2.87 c2.62 g2.03
Webb Creek 13342300	Sweetwater Creek	Lat 46°19'50", long 116°50'10", in NE¼SE¼ sec. 33, T.35 N., R.4 W., about 500 ft upstream from mouth and 4 mi southwest of Sweetwater.	-	1941-42	6- 7-77 6-28-77 7-18-77 8-22-77	c1.08 c .12 c .06 g0
Lindsay Creek tributary No. 4 13343010	Lindsay Creek	Lat 46°22'10", long 116°53'28", in NE¼NW¼NW¼ sec.19, T.35 N., R.4 W., 1.5 mi east of Lewiston Orchards and 6 mi southeast of Lewiston.	2.96	1973-75	6- 7-77 7-19-77 8-11-77 8-22-77	c0 c0 c0 g0
Lindsay Creek 13343065	Clearwater River	NW¼NW¼ sec.4, T.35 N., R.5 W., Nezperce County, at road crossing in Lewiston.	-	-	7-19-77 8-26-77	c1.97 eg .75
		Palouse River basin				
Stephens Creek	Palouse River	Lat 46°58', long 116°30', in NE¼SW¼ sec.19, T.42 N., R.1 W., Latah County, and 10 mi northeast of Harvard.	-	-	4-21-77 5-17-77 6- 6-77 7-20-77 8-19-77 9- 6-77	a1.06 a .51 a .46 a .05 a .11 a .12
Wagner Gulch	Palouse River	Lat 46°58', long 116°32', in NW¼NE¼ sec.26, T.42 N., R.2 W., Latah County, and 8.5 mi northeast of Harvard.	-	-	4-21-77 5-17-77 6-17-77 7-20-77 8- 9-77 9- 6-77	a .20 a .12 a .06 a .02 a .04 a .02
Bonami Creek	Little Sand Creek	Lat 46°50', long 116°30', in SW¼NW¼ sec.8, T.41 N., R.2 W., Latah County, St. Joe National Forest, and 4.5 mi east of Harvard.	-	-	4-21-77 5-17-77 6-17-77 7-20-77 8-19-77 9- 6-77	a1.03 a .92 a .56 a .65 a .68 a .48
Palouse River 13344620	Snake River	Lat 46°57'00", long 116°40'20", in NE¼NE¼NE¼ sec.35, T.42 N., R.3 W., Latah County, 30 ft upstream from U.S. Highway Alt. 95 bridge, and 3.5 mi northeast of Harvard.	-	1963-64, 1974-76	6-14-77 7-11-77 8- 8-77 9- 8-77	c17.6 c6.2 c4.57 c4.91
Deep Creek tributary 13344700	Palouse River	Lat 47°01'28", long 116°52'57", in SE¼ sec. 31, T.43 N., R.4 W., at U.S. Highway 95, 7 mi north of Potlatch.	2.90	1961-67	6-14-77 7-11-77 8- 4-77 9- 9-77	c .08 c0 c0 c0
Deep Creek 13344800	Palouse River	Lat 46°57'38", long 116°56'04", in SE¼SW¼SW¼ sec.23, T.42 N., R.5 W., Latah County, on farm road and 3.3 mi northwest of Potlatch.	36.6	1961-71, 1972-76d	5-10-77 6-14-77 7-11-77 8- 4-77 9- 9-77	e1.0 c .60 c0 c0 c0

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Palouse River basin--Continued				
South Fork Palouse River 13346450	Palouse River	Lat 46°42'41", long 116°58'45", in NE¼SE¼NE¼ sec.20, T.39 N., R.5 W., Latah County, 0.6 mi south of Mountain View Ave.-State Highway 8 junction and 1.0 mi southeast of Moscow.	25.1	1972-76	6-14-77	c .20
					7-11-77	c0
					8- 4-77	c0
					9- 9-77	c0
Paradise Creek 13346700	South Fork Palouse River	Lat 46°43'45", long 116°58'32", in SE¼SW¼NW¼ sec.9, T.39 N., R.5 W., Latah County, on D Street, 1.2 mi east of U.S. Highway 95 in Moscow.	-	1973-76	6-14-77	c .05
					7-11-77	c0
					8- 4-77	c0
					9- 4-77	c0
Paradise Creek 13346750	South Fork Palouse River	Lat 46°43'27", long 116°58'45", in SW¼SW¼NW¼ sec.16, T.39 N., R.5 W., Latah County, on Mountain View Avenue at the southeast edge of Moscow.	14.0	1974-76d	3-15-77	e1.0
					8- 9-77	0
Paradise Creek 13346800	South Fork Palouse River	SW¼ sec.12, T.39 N., R.6 W., Latah County, 800 ft downstream from Moscow Sewer Treatment Plant.	-	-	8- 8-77	c1.23
					9-23-77	c4.48
Cow Creek 13350450	Union Flat Creek	NW¼NW¼ sec.23, T.37 N., R.5 W., Nezperce County, 50 ft above road bridge, and 1 mi south of Genesee.	-	-	8- 8-77	c .04
					9-30-77	c .25

These footnotes are for pages 521-541.

‡ Operated as a continuous-record gaging station.
a Measurement by U.S. Forest Service.
b Approximately.
c Measurement by Idaho Department of Water Resources.
d Operated as a crest-stage station.
e Estimated.
f Measurement by U.S. Bureau of Reclamation.
g Measurement by U.S. Corps of Engineers.

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
HENRYS FORK BASIN								
13039650 - JESSE CREEK NEAR MACKS INN, IDAHO (LAT 44 35 08 LONG 111 18 39)								
SEP . 1977								
08...	1130	--	250	6.9	--	11.5	110	19
13040000 - HENRYS FORK NEAR BIG SPRINGS IDAHO (LAT 44 30 43 LONG 111 17 23)								
SEP . 1977								
08...	1230	--	180	7.7	--	13.5	90	0
13040500 - BIG SPRINGS CREEK AT BIG SPRINGS IDAHO (LAT 44 29 58 LONG 111 15 17)								
SEP . 1977								
08...	1400	--	110	6.7	--	12.0	21	0
13040600 - THIRTY CR AT BIG SPR NR MACKS INN ID (LAT 44 30 13 LONG 111 15 54)								
SEP . 1977								
08...	--	--	60	6.8	--	11.0	14	0
13040800 - MOOSE CREEK NEAR BIG SPRINGS (LAT 44 29 06 LONG 111 17 07)								
SEP . 1977								
08...	1500	--	110	7.1	--	16.0	16	0
13041020 - HENRYS FORK ABOVE RESERVOIR NEAR ISLAND PARK IDA (LAT 44 27 48 LONG 111 24 07)								
SEP . 1977								
08...	1545	--	118	7.9	--	15.0	32	0
13042850 - ELK CREEK AT ISLAND PARK, IDAHO (LAT 44 25 48 LONG 111 21 20)								
SEP . 1977								
09...	0830	--	120	7.0	--	9.0	39	0
13043000 - BUFFALO RIVER AT ISLAND PARK IDAHO (LAT 44 25 25 LONG 111 22 15)								
SEP . 1977								
09...	1000	--	115	7.1	--	8.5	21	0
13043720 - MIDDLE THURMON CREEK NEAR ISLAND PARK, IDAHO (LAT 44 22 15 LONG 111 28 55)								
SEP . 1977								
19...	1430	--	182	8.3	--	12.0	90	11
13043740 - EAST THURMON CREEK NEAR ISLAND PARK, IDAHO (LAT 44 21 40 LONG 111 28 28)								
SEP . 1977								
19...	1400	--	98	8.3	--	12.0	47	8
13043780 - SILVER LAKE OUTLET NEAR ISLAND PARK IDAHO (LAT 44 19 38 LONG 111 27 53)								
SEP . 1977								
09...	1500	--	138	9.4	--	16.5	55	0

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
HENRYS FORK BASIN--Continued									
13039650 - JESSE CREEK NEAR MACKS INN, IDAHO (LAT 44 35 08 LONG 111 18 39)									
SEP , 1977									
08...	30	8.3	5.2	9	.2	3.9	110	90	45
13040000 - HENRYS FORK NEAR BIG SPRINGS IDAHO (LAT 44 30 43 LONG 111 17 23)									
SEP , 1977									
08...	22	8.5	3.5	8	.2	1.7	120	98	4.0
13040500 - BIG SPRINGS CREEK AT BIG SPRINGS IDAHO (LAT 44 29 58 LONG 111 15 17)									
SEP , 1977									
08...	7.3	.7	15	57	1.4	3.0	73	60	2.2
13040600 - THIRTY CR AT BIG SPR NR MACKS INN ID (LAT 44 30 13 LONG 111 15 54)									
SEP , 1977									
08...	4.3	.8	5.5	41	.6	2.5	39	32	2.0
13040800 - MOOSE CREEK NEAR BIG SPRINGS (LAT 44 29 06 LONG 111 17 07)									
SEP , 1977									
08...	5.4	.7	16	63	1.7	3.2	61	50	2.0
13041020 - HENRYS FORK ABOVE RESERVOIR NEAR ISLAND PARK IDA (LAT 44 27 48 LONG 111 24 07)									
SEP , 1977									
08...	8.6	2.5	9.7	38	.7	2.4	68	56	2.4
13042850 - ELK CREEK AT ISLAND PARK, IDAHO (LAT 44 25 48 LONG 111 21 20)									
SEP , 1977									
09...	11	2.7	8.5	31	.6	2.2	83	68	2.9
13043000 - BUFFALO RIVER AT ISLAND PARK IDAHO (LAT 44 25 25 LONG 111 22 15)									
SEP , 1977									
09...	6.4	1.1	16	59	1.5	2.6	83	68	2.2
13043720 - MIDDLE THURMON CREEK NEAR ISLAND PARK, IDAHO (LAT 44 22 15 LONG 111 28 55)									
SEP , 1977									
19...	27	5.4	6.9	14	.3	1.8	96	79	8.3
13043740 - EAST THURMON CREEK NEAR ISLAND PARK, IDAHO (LAT 44 21 40 LONG 111 28 28)									
SEP , 1977									
19...	16	1.6	7.9	26	.5	1.1	47	39	20
13043780 - SILVER LAKE OUTLET NEAR ISLAND PARK IDAHO (LAT 44 19 38 LONG 111 27 53)									
SEP , 1977									
09...	15	4.2	5.6	18	.3	1.4	15	130	2.8

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
HENRYS FORK BASIN--Continued								
13039650 - JESSE CREEK NEAR MACKS INN, IDAHO (LAT 44 35 08 LONG 111 18 39)								
SEP . 1977 08...	.6	.1	20	167	.23	--	.02	.08
13040000 - HENRYS FORK NEAR BIG SPRINGS IDAHO (LAT 44 30 43 LONG 111 17 23)								
SEP . 1977 08...	1.4	.8	18	119	.16	--	.03	.03
13040500 - BIG SPRINGS CREEK AT BIG SPRINGS IDAHO (LAT 44 29 58 LONG 111 15 17)								
SEP . 1977 08...	3.2	3.6	46	117	.16	--	.03	.00
13040600 - THIRTY CR AT BIG SPR NR MACKS INN ID (LAT 44 30 13 LONG 111 15 54)								
SEP . 1977 08...	1.1	2.5	37	75	.10	--	.01	.00
13040800 - MOOSE CREEK NEAR BIG SPRINGS (LAT 44 29 06 LONG 111 17 07)								
SEP . 1977 08...	3.1	3.6	48	112	.15	--	.01	.00
13041020 - HENRYS FORK ABOVE RESERVOIR NEAR ISLAND PARK IDA (LAT 44 27 48 LONG 111 24 07)								
SEP . 1977 08...	2.1	.1	36	97	.13	--	.03	.01
13042850 - ELK CREEK AT ISLAND PARK, IDAHO (LAT 44 25 48 LONG 111 21 20)								
SEP . 1977 09...	1.7	1.3	31	102	.14	--	.02	.01
13043000 - BUFFALO RIVER AT ISLAND PARK IDAHO (LAT 44 25 25 LONG 111 22 15)								
SEP . 1977 09...	3.0	2.7	40	115	.16	--	.07	.00
13043720 - MIDDLE THURMON CREEK NEAR ISLAND PARK, IDAHO (LAT 44 22 15 LONG 111 28 55)								
SEP . 1977 19...	2.4	1.1	33	134	.18	--	.24	.29
13043740 - EAST THURMON CREEK NEAR ISLAND PARK, IDAHO (LAT 44 21 40 LONG 111 28 28)								
SEP . 1977 19...	2.2	.9	27	100	.14	--	.08	.08
13043780 - SILVER LAKE OUTLET NEAR ISLAND PARK IDAHO (LAT 44 19 38 LONG 111 27 53)								
SEP . 1977 09...	2.2	.9	15	127	.17	--	.02	.00

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
HENRYS FORK BASIN--Continued								
13043800 - HENRYS FORK AT OSBORNE BRIDGE (LAT 44 19 29 LONG 111 26 52)								
SEP , 1977								
09...	1400	--	158	7.6	--	14.5	63	0
13044000 - HENRYS FORK AT WARM RIVER IDAHO (LAT 44 06 49 LONG 111 19 52)								
SEP , 1977								
19...	1600	--	149	8.8	--	12.5	49	0
13044200 - WARM RIVER ABOVE FISH HATCHERY NEAR WARM RIVER (LAT 44 12 23 LONG 111 15 03)								
SEP , 1977								
21...	1230	--	67	7.0	--	6.5	25	0
13044250 - 10N 44E 10CBA1S (LAT 44 12 19 LONG 111 14 59)								
SEP , 1977								
21...	1230	--	118	6.8	--	10.5	21	0
13045500 - ROBINSON CREEK AT WARM RIVER IDAHO (LAT 44 06 57 LONG 111 19 09)								
SEP , 1977								
19...	1530	--	165	8.7	--	11.5	42	35
13045796 - HENRYS FORK ABOVE ASHTON RESERVOIR (LAT 44 06 40 LONG 111 26 48)								
SEP , 1977								
06...	1600	--	159	7.7	--	18.0	53	0
13047495 - FALLS R AB DAM NR WARM LAKE ID (LAT 44 04 09 LONG 111 13 50)								
SEP , 1977								
07...	1430	--	210	7.4	--	18.0	18	0
PORTNEUF RIVER BASIN								
13075985 - SPRING CREEK NEAR FORT HALL, IDAHO (LAT 43 00 09 LONG 112 36 01)								
NOV , 1976								
10...	0850	519	476	7.6	-1.0	7.5	220	23
SNAKE RIVER MAIN STEM								
13076300 - ABERDEEN WASTEWAY NR ABERDEEN IDAHO (LAT 42 55 27 LONG 112 48 38)								
NOV , 1976								
09...	0945	4.2	1045	7.4	5.0	6.0	440	130
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK								
13089600 - 10S 18E 04ADD1S DEVILS WASHBOWL SP NR KIMBERLY (LAT 42 35 18 LONG 114 20 45.01)								
MAR , 1977								
04...	0915	17	660	8.5	6.5	12.0	240	27
13090100 - 09S 18E 32DD1S DEVILS CORRAL SPR UPPER OUTLET (LAT 42 35 38 LONG 114 21 55)								
FEB , 1977								
28...	1210	41	589	8.0	13.5	15.0	--	--

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
HENRYS FORK BASIN--Continued									
13043800 - HENRYS FORK AT OSBORNE BRIDGE (LAT 44 19 29 LONG 111 26 52)									
SEP , 1977									
09...	17	5.0	8.5	22	.5	2.1	93	76	3.6
13044000 - HENRYS FORK AT WARM RIVER IDAHO (LAT 44 06 49 LONG 111 19 52)									
SEP , 1977									
19...	13	4.1	8.7	27	.5	2.1	75	62	2.9
13044200 - WARM RIVER ABOVE FISH HATCHERY NEAR WARM RIVER (LAT 44 12 23 LONG 111 15 03)									
SEP , 1977									
21...	7.0	1.9	3.4	21	.3	1.6	35	29	1.3
13044250 - 10N 44E 10CBA1S (LAT 44 12 19 LONG 111 14 59)									
SEP , 1977									
21...	6.0	1.4	14	57	1.3	1.4	48	39	1.9
13045500 - ROBINSON CREEK AT WARM RIVER IDAHO (LAT 44 06 57 LONG 111 19 09)									
SEP , 1977									
19...	12	2.8	15	43	1.0	2.1	8	7	1.6
13045796 - HENRYS FORK ABOVE ASHTON RESERVOIR (LAT 44 06 40 LONG 111 26 48)									
SEP , 1977									
06...	14	4.3	10	28	.6	2.1	88	72	3.8
13047495 - FALLS R AB DAM NR WARM LAKE ID (LAT 44 04 09 LONG 111 13 50)									
SEP , 1977									
07...	5.5	1.1	36	77	3.7	3.8	93	76	3.4
PORTNEUF RIVER BASIN--Continued									
13075985 - SPRING CREEK NEAR FORT HALL, IDAHO (LAT 43 00 09 LONG 112 36 01)									
NOV , 1976									
10...	60	18	22	17	.6	3.6	240	197	30
SNAKE RIVER MAIN STEM--Continued									
13076300 - ABERDEEN WASTEWAY NR ABERDEEN IDAHO (LAT 42 55 27 LONG 112 48 38)									
NOV , 1976									
09...	89	52	87	30	1.8	10	380	312	250
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued									
13089600 - 10S 18E 04ADD1S DEVILS WASHBOWL SP NR KIMBERLY (LAT 42 35 18 LONG 114 20 45.01)									
MAR , 1977									
04...	58	24	47	29	1.3	6.7	260	213	67
13090100 - 09S 18E 32DD1S DEVILS CORRAL SPR UPPER OUTLET (LAT 42 35 38 LONG 114 21 55)									
FEB , 1977									
28...	--	--	--	--	--	--	--	--	63

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
HENRYS FORK BASIN--Continued								
13043800 - HENRYS FORK AT OSBORNE BRIDGE (LAT 44 19 29 LONG 111 26 52)								
SEP , 1977								
09...	1.9	1.7	1.8	88	.12	--	.01	.03
13044000 - HENRYS FORK AT WARM RIVER IDAHO (LAT 44 06 49 LONG 111 19 52)								
SEP , 1977								
19...	2.4	2.0	25	97	.13	--	.02	.00
13044200 - WARM RIVER ABOVE FISH HATCHERY NEAR WARM RIVER (LAT 44 12 23 LONG 111 15 03)								
SEP , 1977								
21...	1.1	1.2	32	67	.09	--	.03	.00
13044250 - 10N 44E 10CBA1S (LAT 44 12 19 LONG 111 14 59)								
SEP , 1977								
21...	6.9	2.2	32	91	.12	--	.21	.11
13045500 - ROBINSON CREEK AT WARM RIVER IDAHO (LAT 44 06 57 LONG 111 19 09)								
SEP , 1977								
19...	8.2	2.2	39	88	.12	--	.08	.00
13045796 - HENRYS FORK ABOVE ASHTON RESERVOIR (LAT 44 06 40 LONG 111 26 48)								
SEP , 1977								
06...	2.9	1.8	23	105	.14	--	.01	.03
13047495 - FALLS R AB DAM NR WARM LAKE ID (LAT 44 04 09 LONG 111 13 50)								
SEP , 1977								
07...	13	3.6	51	164	.22	--	.06	.01
PORTNEUF RIVER BASIN--Continued								
13075985 - SPRING CREEK NEAR FORT HALL, IDAHO (LAT 43 00 09 LONG 112 36 01)								
NOV , 1976								
10...	22	.7	22	301	.41	422	.93	.02
SNAKE RIVER MAIN STEM--Continued								
13076300 - ABERDEEN WASTEWAY NR ABERDEEN IDAHO (LAT 42 55 27 LONG 112 48 38)								
NOV , 1976								
09...	42	.6	31	749	1.02	8.49	.01	.56
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued								
13089600 - 10S 18E 04ADD1S DEVILS WASHBOWL SP NR KIMBERLY (LAT 42 35 18 LONG 114 20 45.01)								
MAR , 1977								
04...	45	.5	37	423	.57	19.3	2.1	.00
13090100 - 09S 18E 32DD 1S DEVILS CORRAL SPR UPPER OUTLET (LAT 42 35 38 LONG 114 21 55)								
FEB , 1977								
28...	45	--	--	--	--	--	2.1	.00

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued								
13090101 - 09S 18E 32BD 1S DEVILS CORRAL SPR L. OUTLET (LAT 42 36 01 LONG 114 22 30)								
FEB , 1977								
28...	1340	7.3	555	8.2	13.5	13.5	220	31
13090300 - 09S 18E 31AC 1S UNNAMED SPR NO.1 NR TWIN FALLS (LAT 42 36 03 LONG 114 23 36)								
FEB , 1977								
28...	1425	1.5	621	8.1	13.5	15.5	--	--
13090350 - 09S 18E 31AC 2S UNNAMED SPR NO.2 NR TWIN FALLS (LAT 42 35 52 LONG 114 23 55)								
FEB , 1977								
28...	1510	5.8	590	8.1	11.5	12.0	--	--
13091200 - PERRINE DITCH OUTLET TO BLUE LAKES SPR NR T FALL (LAT 42 36 34 LONG 114 28 40)								
MAR , 1977								
03...	1210	195	554	--	6.5	15.0	--	--
13091700 - WARM CR NR TWIN FALLS ID (LAT 42 37 15 LONG 114 29 55)								
MAR , 1977								
03...	1620	43	572	7.8	8.0	16.0	--	--
13093300 - 09S 16E 15DDC1S ELLISON SPR UPPER OUTLET (LAT 42 38 17 LONG 114 33 40)								
MAR , 1977								
03...	1440	1.2	507	8.6	10.0	9.0	--	--
13093391 - 09S 15E 12DAB2S CRYSTAL SPR TRIB 1 (LAT 42 39 29 LONG 114 38 18.01)								
MAR , 1977								
02...	1135	15	618	7.8	4.0	14.5	--	--
13093396 - CRYSTAL SPRINGS OUTLET NO. 11 NEAR BUHL IDAHO (LAT 42 39 39 LONG 114 38 50)								
MAR , 1977								
02...	1025	341	667	8.3	4.0	14.0	--	--
13093398 - 09S 15E 12BCA1S CRYSTAL SPR TRIB 8 (LAT 42 39 42 LONG 114 38 59)								
MAR , 1977								
02...	1335	10	601	8.2	6.5	14.0	240	51
13093700 - 09S 15E 10AA1S NIAGARA SP NR BUHL ID (LAT 42 39 48 LONG 114 40 25.01)								
MAR , 1977								
02...	1230	300	449	8.1	9.0	15.0	220	56
13094500 - 09S 14E 02DCC1S CLEAR LKS SP NR BUHL ID (LAT 42 40 01 LONG 114 46 45)								
MAR , 1977								
01...	1120	524	456	7.9	6.5	13.0	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued									
13090101 - 09S 18E 32BD 1S DEVILS CORRAL SPR L. OUTLET (LAT 42 36 01 LONG 114 22 30)									
FEB . 1977									
28...	56	20	39	27	1.1	7.0	230	189	57
13090300 - 09S 18E 31AC 1S UNNAMED SPR NO.1 NR TWIN FALLS (LAT 42 36 03 LONG 114 23 36)									
FEB . 1977									
28...	--	--	--	--	--	--	--	--	56
13090350 - 09S 18E 31AC 2S UNNAMED SPR NO.2 NR TWIN FALLS (LAT 42 35 52 LONG 114 23 55)									
FEB . 1977									
28...	--	--	--	--	--	--	--	--	58
13091200 - PERRINE DITCH OUTLET TO BLUE LAKES SPR NR T FALL (LAT 42 36 34 LONG 114 28 40)									
MAR . 1977									
03...	--	--	--	--	--	--	--	--	59
13091700 - WARM CR NR TWIN FALLS ID (LAT 42 37 15 LONG 114 29 55)									
MAR . 1977									
03...	--	--	--	--	--	--	--	--	60
13093300 - 09S 16E 15DDC1S ELLISON SPR UPPER OUTLET (LAT 42 38 17 LONG 114 33 40)									
MAR . 1977									
03...	--	--	--	--	--	--	--	--	64
13093391 - 09S 15E 12DAB2S CRYSTAL SPR TRIB 1 (LAT 42 39 29 LONG 114 38 18.01)									
MAR . 1977									
02...	--	--	--	--	--	--	--	--	62
13093396 - CRYSTAL SPRINGS OUTLET NO. 11 NEAR BUHL IDAHO (LAT 42 39 39 LONG 114 38 50)									
MAR . 1977									
02...	--	--	--	--	--	--	--	--	65
13093398 - 09S 15E 12BCA1S CRYSTAL SPR TRIB 8 (LAT 42 39 42 LONG 114 38 59)									
MAR . 1977									
02...	56	25	32	22	.9	4.7	230	189	61
13093700 - 09S 15E 10AA1S NIAGARA SP NR BUHL ID (LAT 42 39 48 LONG 114 40 25.01)									
MAR . 1977									
02...	52	21	27	21	.8	4.4	200	164	56
13094500 - 09S 14E 02DCC1S CLEAR LKS SP NR BUHL ID (LAT 42 40 01 LONG 114 46 45)									
MAR . 1977									
01...	--	--	--	--	--	--	--	--	45

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued								
13090101 - 09S 18E 32BD 1S DEVILS CORRAL SPR L. OUTLET (LAT 42 36 01 LONG 114 22 30)								
FEB . 1977								
28...	44	.5	38	383	--	--	1.9	.00
13090300 - 09S 18E 31AC 1S UNNAMED SPR NO.1 NR TWIN FALLS (LAT 42 36 03 LONG 114 23 36)								
FEB . 1977								
28...	43	--	--	--	--	--	1.8	.00
13090350 - 09S 18E 31AC 2S UNNAMED SPR NO.2 NR TWIN FALLS (LAT 42 35 52 LONG 114 23 55)								
FEB . 1977								
28...	45	--	--	--	--	--	1.8	.00
13091200 - PERRINE DITCH OUTLET TO BLUE LAKES SPR NR T FALL (LAT 42 36 34 LONG 114 28 40)								
MAR . 1977								
03...	48	--	--	--	--	--	1.8	.00
13091700 - WARM CR NR TWIN FALLS ID (LAT 42 37 15 LONG 114 29 55)								
MAR . 1977								
03...	51	--	--	--	--	--	1.8	.00
13093300 - 09S 16E 15DDC1S ELLISON SPR UPPER OUTLET (LAT 42 38 17 LONG 114 33 40)								
MAR . 1977								
03...	48	--	--	--	--	--	1.9	.00
13093391 - 09S 15E 12DAB2S CRYSTAL SPR TRIB 1 (LAT 42 39 29 LONG 114 38 18.01)								
MAR . 1977								
02...	43	--	--	--	--	--	2.2	.02
13093396 - CRYSTAL SPRINGS OUTLET NO. 11 NEAR BUHL IDAHO (LAT 42 39 39 LONG 114 38 50)								
MAR . 1977								
02...	49	--	--	--	--	--	1.9	.05
13093398 - 09S 15E 12BCA1S CRYSTAL SPR TRIB 8 (LAT 42 39 42 LONG 114 38 59)								
MAR . 1977								
02...	47	.6	32	378	.51	10.2	1.5	.01
13093700 - 09S 15E 10AA1S NIAGARA SP NR BUHL ID (LAT 42 39 48 LONG 114 40 25.01)								
MAR . 1977								
02...	45	.6	31	340	.46	275	1.1	.01
13094500 - 09S 14E 02DCC1S CLEAR LKS SP NR BUHL ID (LAT 42 40 01 LONG 114 46 45)								
MAR . 1977								
01...	30	--	--	--	--	--	.97	.09

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued								
13095175 - 09S 14E 03CBA1S BRIGGS CR AT HEAD NR BUHL, IDAHO (LAT 42 40 26 LONG 114 48 30)								
MAR , 1977								
01...	1505	116	431	8.0	6.5	14.0	--	--
13095300 - 08S 14E 33DAB1S BANBURY SPR NR BUHL (LAT 42 41 31 LONG 114 49 21)								
MAR , 1977								
03...	1530	117	395	8.7	4.0	13.5	--	--
13095350 - 08S 14E 28CD 1S UNNAMED SPR NR BUHL (LAT 42 41 51 LONG 114 49 21)								
MAR , 1977								
03...	1445	4.5	307	8.4	5.5	13.5	--	--
13095400 - 08S 14E 28BDD1S BLIND CANYON SPR NR BUHL, IDAHO (LAT 42 42 12 LONG 114 49 20)								
MAR , 1977								
03...	1515	12	384	8.3	5.5	13.0	--	--
SNAKE RIVER MAIN STEM								
13108160 - SNAKE RIVER ABOVE 1000 SPRINGS NR HAGERMAN IDAHO (LAT 42 43 27 LONG 114 50 48)								
MAR , 1977								
03...	1100	7290	587	8.3	5.0	6.5	--	--
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER								
13132600 - 08S 14E 17B 1S SAND SPR AB PONDS NR HAGERMAN,ID (LAT 42 43 36 LONG 114 50 00)								
MAR , 1977								
01...	1030	86	365	8.5	2.5	12.5	160	12
13132700 - 08S 14E 08DBA1S THOUSAND SPR AT N TUNNEL (LAT 42 44 44 LONG 114 50 25)								
MAR , 1977								
03...	1330	1100	376	8.2	--	14.5	--	--
13132790 - 08S 14E 06DAC1S BICKEL SP NR HAGERMAN ID (LAT 42 45 29 LONG 114 51 19.01)								
MAR , 1977								
01...	1315	17	324	8.2	4.0	15.0	130	0
SNAKE RIVER MAIN STEM								
13132801 - SNAKE RIVER BELOW 1000 SPRINGS NR HAGERMAN IDAHO (LAT 42 45 26 LONG 114 52 01)								
MAR , 1977								
03...	1200	8400	469	8.3	6.0	10.5	--	--
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER								
13133800 - 08S 14E 06AC 1S RILEY CR BELOW LEWIS CR (LAT 42 45 50 LONG 114 51 40)								
MAR , 1977								
01...	1540	78	298	8.4	6.0	14.5	--	--
13134600 - 07S 14E 32BCD1S BILLINGSLY CR AT HEAD (LAT 42 46 35 LONG 114 50 55)								
FEB , 1977								
28...	1630	42	307	8.4	4.0	15.0	--	--

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued									
13095175 - 09S 14E 03CBA1S BRIGGS CR AT HEAD NR BUHL, IDAHO (LAT 42 40 26 LONG 114 48 30)									
MAR , 1977 01...	--	--	--	--	--	--	--	--	39
13095300 - 08S 14E 33DAB1S BANBURY SPR NR BUHL (LAT 42 41 31 LONG 114 49 21)									
MAR , 1977 03...	--	--	--	--	--	--	--	--	37
13095350 - 08S 14E 28CD 1S UNNAMED SPR NR BUHL (LAT 42 41 51 LONG 114 49 21)									
MAR , 1977 03...	--	--	--	--	--	--	--	--	36
13095400 - 08S 14E 28BDD1S BLIND CANYON SPR NR BUHL, IDAHO (LAT 42 42 12 LONG 114 49 20)									
MAR , 1977 03...	--	--	--	--	--	--	--	--	36
SNAKE RIVER MAIN STEM--Continued									
13108160 - SNAKE RIVER ABOVE 1000 SPRINGS NR HAGERMAN IDAHO (LAT 42 43 27 LONG 114 50 48)									
MAR , 1977 03...	--	--	--	--	--	--	--	--	53
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER--Continued									
13132600 - 08S 14E 17B 1S SAND SPR AB PONDS NR HAGERMAN,ID (LAT 42 43 36 LONG 114 50 00)									
MAR , 1977 01...	35	17	20	21	.7	3.5	180	148	34
13132700 - 08S 14E 08DBA1S THOUSAND SPR AT N TUNNEL (LAT 42 44 44 LONG 114 50 25)									
MAR , 1977 03...	--	--	--	--	--	--	--	--	31
13132790 - 08S 14E 06DAC1S BICKEL SP NR HAGERMAN ID (LAT 42 45 29 LONG 114 51 19.01)									
MAR , 1977 01...	29	15	16	20	.6	3.4	160	131	25
SNAKE RIVER MAIN STEM--Continued									
13132801 - SNAKE RIVER BELOW 1000 SPRINGS NR HAGERMAN IDAHO (LAT 42 45 26 LONG 114 52 01)									
MAR , 1977 03...	--	--	--	--	--	--	--	--	47
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER--Continued									
13133800 - 08S 14E 06AC 1S RILEY CR BELOW LEWIS CR (LAT 42 45 50 LONG 114 51 40)									
MAR , 1977 01...	--	--	--	--	--	--	--	--	25
13134600 - 07S 14E 32BCD1S BILLINGSLY CR AT HEAD (LAT 42 46 35 LONG 114 50 55)									
FEB , 1977 28...	--	--	--	--	--	--	--	--	26

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
TRIBUTARIES BETWEEN SNAKE RIVER AT MILNER AND SALMON FALLS CREEK--Continued								
13095175 - 09S 14E 03CBA1S BRIGGS CR AT HEAD NR BUHL, IDAHO (LAT 42 40 26 LONG 114 48 30)								
MAR . 1977								
01...	25	--	--	--	--	--	.88	.00
13095300 - 08S 14E 33DAB1S BANBURY SPR NR BUHL (LAT 42 41 31 LONG 114 49 21)								
MAR . 1977								
03...	22	--	--	--	--	--	.74	.00
13095350 - 08S 14E 28CD 1S UNNAMED SPR NR BUHL (LAT 42 41 51 LONG 114 49 21)								
MAR . 1977								
03...	20	--	--	--	--	--	.81	.01
13095400 - 08S 14E 28BDD1S BLIND CANYON SPR NR BUHL, IDAHO (LAT 42 42 12 LONG 114 49 20)								
MAR . 1977								
03...	21	--	--	--	--	--	.80	.09
SNAKE RIVER MAIN STEM--Continued								
13108160 - SNAKE RIVER ABOVE 1000 SPRINGS NR HAGERMAN IDAHO (LAT 42 43 27 LONG 114 50 48)								
MAR . 1977								
03...	30	--	--	--	--	--	1.1	.08
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER--Continued								
13132600 - 08S 14E 17B 1S SAND SPR AB PONDS NR HAGERMAN,ID (LAT 42 43 36 LONG 114 50 00)								
MAR . 1977								
01...	18	.7	31	251	.34	57.6	.78	.00
13132700 - 08S 14E 08DBA1S THOUSAND SPR AT N TUNNEL (LAT 42 44 44 LONG 114 50 25)								
MAR . 1977								
03...	15	--	--	--	--	--	.87	.01
13132790 - 08S 14E 06DAC1S RICKEL SP NR HAGERMAN ID (LAT 42 45 29 LONG 114 51 19.01)								
MAR . 1977								
01...	13	.6	30	214	.29	9.82	.70	.00
SNAKE RIVER MAIN STEM--Continued								
13132801 - SNAKE RIVER BELOW 1000 SPRINGS NR HAGERMAN IDAHO (LAT 42 45 26 LONG 114 52 01)								
MAR . 1977								
03...	27	--	--	--	--	--	.94	.06
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER--Continued								
13133800 - 08S 14E 06AC 1S RILEY CR BELOW LEWIS CR (LAT 42 45 50 LONG 114 51 40)								
MAR . 1977								
01...	11	--	--	--	--	--	.71	.02
13134600 - 07S 14E 32BCD1S BILLINGSLY CR AT HEAD (LAT 42 46 35 LONG 114 50 55)								
FEB . 1977								
28...	13	--	--	--	--	--	.75	.01

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER--Continued								
13134800 - 07S 13E 11AC 1S BILLINGSLEY CR AT MOUTH (LAT 42 50 10 LONG 114 53 40)								
FEB , 1977								
28...	1505	198	323	8.6	18.0	13.5	--	--
13135100 - 06S 13E 34DD 1S BIRCH CREEK NEAR HAGERMAN, IDAHO (LAT 42 51 10 LONG 114 53 30)								
FEB , 1977								
28...	1220	8.6	389	8.4	13.5	12.0	--	--
SALMON RIVER BASIN								
13297384 - S.F. OF E.F. SALMON R AB W.F. NR CLAYTON, IDAHO (LAT 43 55 44 LONG 114 33 15)								
JUL , 1977								
16...	1110	--	104	7.6	21.0	8.0	52	10
13297388 - W.F. OF E.F. SALMON R AB S.F. NR CLAYTON, IDAHO (LAT 43 55 46 LONG 114 33 18)								
JUL , 1977								
16...	1000	--	147	7.9	17.5	7.5	74	6
13297394 - E F SALMON R BL IBEX CR, NR CLAYTON, IDA (LAT 43 58 02 LONG 114 30 32)								
JUL , 1977								
14...	1830	42	119	7.6	27.0	12.5	54	2
13297400 - E.F. SALMON R BL BOWERY G. S. NR CLAYTON, IDAHO (LAT 44 00 23 LONG 114 28 48)								
JUL , 1977								
14...	1725	41	132	7.8	27.0	15.0	60	0
13297402 - GERMANIA CR AB GALENA GULCH, NR CLAYTON, IDA (LAT 43 58 42 LONG 114 38 33)								
JUL , 1977								
14...	1810	--	178	8.4	18.0	9.0	89	7
13297404 - GERMANIA CREEK NEAR CLAYTON, IDAHO (LAT 44 02 21 LONG 114 27 40)								
JUL , 1977								
14...	1630	31	145	8.1	--	14.0	71	0
13297434 - L BOULDER CR AB AVALANCHE DAM, NR CLAYTON, ID (LAT 44 03 13 LONG 114 36 08)								
JUL , 1977								
14...	1200	--	18	7.4	12.5	10.0	8	0
13297436 - L BOULDER CR BL AVALANCHE DAM, NR CLAYTON, ID (LAT 44 03 15 LONG 114 36 04)								
JUL , 1977								
14...	1235	--	20	7.2	17.0	9.0	7	0
13297438 - L BOULDER CR AB QUIET LK, NR CLAYTON, IDA (LAT 44 03 06 LONG 114 35 39)								
JUL , 1977								
14...	1315	--	24	7.4	26.5	12.0	9	0

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER--Continued									
13134800 - 07S 13E 11AC 1S BILLINGSLEY CR AT MOUTH (LAT 42 50 10 LONG 114 53 40)									
FEB , 1977 28...	--	--	--	--	--	--	--	--	26
13135100 - 06S 13E 34DD 1S BIRCH CREEK NEAR HAGERMAN, IDAHO (LAT 42 51 10 LONG 114 53 30)									
FEB , 1977 28...	--	--	--	--	--	--	--	--	31
SALMON RIVER BASIN--Continued									
13297384 - S.F. OF E.F. SALMON R AB W.F. NR CLAYTON, IDAHO (LAT 43 55 44 LONG 114 33 15)									
JUL , 1977 16...	18	1.6	1.7	7	.1	.3	51	42	9.6
13297388 - W.F. OF E.F. SALMON R AB S.F. NR CLAYTON, IDAHO (LAT 43 55 46 LONG 114 33 18)									
JUL , 1977 16...	25	2.7	1.7	5	.1	.3	83	68	7.7
13297394 - E F SALMON R BL IBEX CR, NR CLAYTON, IDA (LAT 43 58 02 LONG 114 30 32)									
JUL , 1977 14...	19	1.6	2.1	8	.1	.4	63	52	10
13297400 - E.F. SALMON R BL BOWERY G. S. NR CLAYTON, IDAHO (LAT 44 00 23 LONG 114 28 48)									
JUL , 1977 14...	21	1.9	3.6	11	.2	.5	97	80	10
13297402 - GERMANIA CR AB GALENA GULCH, NR CLAYTON, IDA (LAT 43 58 42 LONG 114 38 33)									
JUL , 1977 14...	33	1.6	1.0	2	.0	.5	100	82	6.3
13297404 - GERMANIA CREEK NEAR CLAYTON, IDAHO (LAT 44 02 21 LONG 114 27 40)									
JUL , 1977 14...	25	2.1	2.7	8	.1	.4	110	90	3.7
13297434 - L BOULDER CR AB AVALANCHE DAM, NR CLAYTON, ID (LAT 44 03 13 LONG 114 36 08)									
JUL , 1977 14...	3.3	.0	.7	15	.1	.1	12	10	.5
13297436 - L BOULDER CR BL AVALANCHE DAM, NR CLAYTON, ID (LAT 44 03 15 LONG 114 36 04)									
JUL , 1977 14...	2.9	.0	.8	19	.1	.2	12	10	1.8
13297438 - L BOULDER CR AB QUIET LK, NR CLAYTON, IDA (LAT 44 03 06 LONG 114 35 39)									
JUL , 1977 14...	3.5	.0	.8	16	.1	.2	15	12	.8

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
TRIBUTARIES TO SNAKE RIVER FROM THOUSAND SPRINGS TO BIG WOOD RIVER--Continued								
13134800 - 07S 13E 11AC 1S BILLINGSLEY CR AT MOUTH (LAT 42 50 10 LONG 114 53 40)								
FEB , 1977 28...	11	--	--	--	--	--	.88	.08
13135100 - 06S 13E 34DD 1S BIRCH CREEK NEAR HAGERMAN, IDAHO (LAT 42 51 10 LONG 114 53 30)								
FEB , 1977 28...	15	--	--	--	--	--	1.0	.10
SALMON RIVER BASIN--Continued								
13297384 - S.F. OF E.F. SALMON R AB W.F. NR CLAYTON, IDAHO (LAT 43 55 44 LONG 114 33 15)								
JUL , 1977 16...	.4	.0	5.2	62	.08	--	.05	.00
13297388 - W.F. OF E.F. SALMON R AB S.F. NR CLAYTON, IDAHO (LAT 43 55 46 LONG 114 33 18)								
JUL , 1977 16...	.4	.0	6.3	85	.12	--	.02	.00
13297394 - E F SALMON R BL IBEX CR, NR CLAYTON, IDA (LAT 43 58 02 LONG 114 30 32)								
JUL , 1977 14...	.6	.1	6.1	71	.10	8.05	.01	.00
13297400 - E.F. SALMON R BL HOWERY G. S. NR CLAYTON, IDAHO (LAT 44 00 23 LONG 114 28 48)								
JUL , 1977 14...	.7	.2	6.9	93	.13	10.3	.00	.00
13297402 - GERMANIA CR AB GALENA GULCH, NR CLAYTON, IDA (LAT 43 58 42 LONG 114 38 33)								
JUL , 1977 14...	.4	.0	14	106	.14	--	.02	.00
13297404 - GERMANIA CREEK NEAR CLAYTON, IDAHO (LAT 44 02 21 LONG 114 27 40)								
JUL , 1977 14...	.5	.1	11	100	.14	8.40	.04	.01
13297434 - L BOULDER CR AB AVALANCHE DAM, NR CLAYTON, ID (LAT 44 03 13 LONG 114 36 08)								
JUL , 1977 14...	.1	.0	2.2	13	.02	--	.00	.00
13297436 - L BOULDER CR BL AVALANCHE DAM, NR CLAYTON, ID (LAT 44 03 15 LONG 114 36 04)								
JUL , 1977 14...	.2	.1	2.8	15	.02	--	.04	.00
13297438 - L BOULDER CR AB QUIET LK, NR CLAYTON, IDA (LAT 44 03 06 LONG 114 35 39)								
JUL , 1977 14...	.2	.1	2.9	16	.02	--	.06	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
SALMON RIVER BASIN--Continued								
13297460 - MTN GOAT LAKE OUTLET NR CLAYTON ID (LAT 44 06 43 LONG 114 37 04)								
JUL , 1977								
15...	1115	--	45	7.5	15.0	9.5	20	0
13297462 - SNOWBANK TRIB AB WALTER LK, NR CLAYTON, IDA (LAT 44 06 47 LONG 114 36 60)								
JUL , 1977								
15...	1200	--	39	7.9	18.5	11.5	20	0
1329746[illegible] - TIN CUP LK CR TRIB NR CLAYTON, IDAHO (LAT 44 07 03 LONG 114 35 04)								
JUL , 1977								
15...	1715	--	30	7.6	20.5	9.5	17	3
13297470 - B BOULDER CR BL TIN CUP LK CR, NR CLAYTON, ID (LAT 44 06 39 LONG 114 34 13)								
JUL , 1977								
15...	1445	--	46	8.0	28.5	14.0	21	5
13297474 - SLACK CR TR AB L REDFISH LK CR, NR CLAYTON, I (LAT 44 06 39 LONG 114 31 56)								
JUL , 1977								
15...	1600	--	121	--	--	--	62	2
13297500 - BIG BOULDER CREEK NEAR CLAYTON, IDAHO (LAT 44 05 58 LONG 114 26 24)								
JUL , 1977								
13...	1600	19	92	7.7	25.0	13.5	45	7
SEP								
27...	1430	10	107	--	9.5	7.0	--	--
13297580 - HERD CR AB LK CR, NR CLAYTON, IDAHO (LAT 44 06 01 LONG 114 14 47)								
JUL , 1977								
16...	1400	--	193	8.2	29.0	14.0	85	0
13297590 - LK CR BL HERD LK, NR CLAYTON, IDAHO (LAT 44 05 45 LONG 114 10 52)								
JUL , 1977								
15...	1115	5.0	88	7.7	26.5	14.0	32	0
13297600 - HERD CREEK NEAR CLAYTON, IDAHO (LAT 44 09 11 LONG 114 17 54)								
JUL , 1977								
13...	1440	31	185	8.3	21.0	16.0	84	0
13297670 - ROAD C ABOVE HORSE BASIN C NR CLAYTON, IDAHO (LAT 44 10 36 LONG 114 12 03.01)								
JUL , 1977								
15...	1320	2.7	216	8.0	29.5	15.0	94	0

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
SALMON RIVER BASIN--Continued									
13297460 - MTN GOAT LAKE OUTLET NR CLAYTON ID (LAT 44 06 43 LONG 114 37 04)									
JUL, 1977									
15...	7.9	.0	.4	4	.0	.1	32	26	.7
13297462 - SNOWBANK TRIB AB WALTER LK, NR CLAYTON, IDA (LAT 44 06 47 LONG 114 36 60)									
JUL, 1977									
15...	7.8	.1	.3	3	.0	.1	27	22	1.1
13297466 - TIN CUP LK CR TRIB NR CLAYTON, IDAHO (LAT 44 07 03 LONG 114 35 04)									
JUL, 1977									
15...	6.8	.0	1.0	11	.1	.2	17	14	2.6
13297470 - B BOULDER CR BL TIN CUP LK CR, NR CLAYTON, ID (LAT 44 06 39 LONG 114 34 13)									
JUL, 1977									
15...	8.4	.0	1.2	11	.1	.2	19	16	3.6
13297474 - SLACK CR TR AB L REDFISH LK CR, NR CLAYTON, I (LAT 44 06 39 LONG 114 31 56)									
JUL, 1977									
15...	21	2.2	5.8	17	.3	.5	73	60	4.0
13297500 - BIG BOULDER CREEK NEAR CLAYTON, IDAHO (LAT 44 05 58 LONG 114 26 24)									
JUL, 1977									
13...	15	1.8	2.5	11	.2	.4	46	38	11
SEP									
27...	--	--	--	--	--	--	--	--	--
13297580 - HERD CR AB LK CR, NR CLAYTON, IDAHO (LAT 44 06 01 LONG 114 14 47)									
JUL, 1977									
16...	25	5.4	6.8	15	.3	.4	110	90	5.3
13297590 - LK CR BL HERD LK, NR CLAYTON, IDAHO (LAT 44 05 45 LONG 114 10 52)									
JUL, 1977									
15...	8.7	2.5	3.8	20	.3	.8	51	42	2.0
13297600 - HERD CREEK NEAR CLAYTON, IDAHO (LAT 44 09 11 LONG 114 17 54)									
JUL, 1977									
13...	25	5.3	7.2	16	.3	.5	110	90	12
13297670 - ROAD C ABOVE HORSE BASIN C NR CLAYTON, IDAHO (LAT 44 10 36 LONG 114 12 03.01)									
JUL, 1977									
15...	21	10	9.3	17	.4	3.3	120	98	4.4

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
SALMON RIVER BASIN--Continued								
13297460 - MTN GOAT LAKE OUTLET NR CLAYTON ID (LAT 44 06 43 LONG 114 37 04)								
JUL, 1977								
15...	.3	.0	5.5	31	.04	--	.01	.00
13297462 - SNOWBANK TRIB AB WALTER LK, NR CLAYTON, IDA (LAT 44 06 47 LONG 114 36 60)								
JUL, 1977								
15...	.2	.0	5.9	29	.04	--	.05	.00
13297466 - TIN CUP LK CR TRIB NR CLAYTON, IDAHO (LAT 44 07 03 LONG 114 35 04)								
JUL, 1977								
15...	.3	.1	5.4	25	.03	--	.00	.00
13297470 - B BOULDER CR BL TIN CUP LK CR, NR CLAYTON, ID (LAT 44 06 39 LONG 114 34 13)								
JUL, 1977								
15...	.2	.1	5.4	28	.04	--	.00	.00
13297474 - SLACK CR TR AB L REDFISH LK CR, NR CLAYTON, I (LAT 44 06 39 LONG 114 31 56)								
JUL, 1977								
15...	.8	.1	23	93	.13	--	.00	.03
13297500 - BIG BOULDER CREEK NEAR CLAYTON, IDAHO (LAT 44 05 58 LONG 114 26 24)								
JUL, 1977								
13...	.5	.1	10	64	.09	3.30	.00	.00
SEP								
27...	--	--	--	--	--	--	--	--
13297580 - HERD CR AB LK CR, NR CLAYTON, IDAHO (LAT 44 06 01 LONG 114 14 47)								
JUL, 1977								
16...	1.7	.1	11	110	.15	--	.01	.00
13297590 - LK CR BL HERD LK, NR CLAYTON, IDAHO (LAT 44 05 46 LONG 114 10 52)								
JUL, 1977								
15...	1.4	.1	16	61	.08	.82	.04	.03
13297600 - HERD CREEK NEAR CLAYTON, IDAHO (LAT 44 09 11 LONG 114 17 54)								
JUL, 1977								
13...	2.4	.1	13	120	.16	10.0	.00	.00
13297670 - ROAD C ABOVE HORSE BASIN C NR CLAYTON, IDAHO (LAT 44 10 36 LONG 114 12 03.01)								
JUL, 1977								
15...	5.9	.2	38	151	.21	1.10	.00	.08

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

SALMON RIVER BASIN--Continued

13297680 - HORSE BASIN CREEK NEAR CLAYTON IDAHO (LAT 44 10 40 LONG 114 12 07.01)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
JUL, 1977 15...	1410	.16	621	8.6	30.5	16.0	230	0

13297700 - ROAD CREEK NEAR CLAYTON IDAHO (LAT 44 11 15 LONG 114 17 09.01)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
JUL, 1977 13...	1245	.60	286	--	22.0	17.0	130	0

13298000 - E FK SALMON RIVER NR CLAYTON ID (LAT 44 13 29 LONG 114 17 06)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
NOV, 1976 07...	1710	146	183	--	9.5	5.0	--	--
DEC 15...	1250	73	177	--	3.5	.5	--	--
JAN, 1977 27...	1430	92	208	--	12.0	2.5	--	--
MAR 13...	1405	79	420	--	6.0	3.5	--	--
APR 13...	1315	102	204	--	16.5	7.5	--	--
MAY 21...	1500	132	195	--	15.5	10.0	--	--
JUN 23...	1215	316	168	--	27.0	13.0	--	--
JUL 13...	1100	159	191	8.0	12.5	11.5	86	4
AUG 04...	1140	144	255	--	29.0	13.5	--	--
SEP 13...	0935	82	194	--	8.5	7.0	--	--

HENRYS FORK BASIN

440017111085800 - CONANT C NR ASHTON ID (LAT 44 00 17 LONG 111 08 58)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
SEP, 1977 20...	0900	--	138	7.9	--	8.0	69	0

440257111102300 - SQUIRREL C NR ASHTON ID (LAT 44 02 57 LONG 111 10 23)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
SEP, 1977 20...	1030	--	165	7.9	--	8.5	100	25

440351111060000 - BOONE C NR ASHTON ID (LAT 44 03 51 LONG 111 06 00)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
SEP, 1977 20...	1130	--	105	8.0	--	9.5	48	1

440705111150000 - ROCK C AT MOUTH NR WARM R ID (LAT 44 07 05 LONG 111 15 00)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
SEP, 1977 20...	1200	--	210	8.2	--	11.0	87	0

440705111150001 - ROBINSON C AB ROCK C NR WARM R ID (LAT 44 07 05 LONG 111 15 00.01)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
SEP, 1977 20...	1200	--	120	8.0	--	10.5	31	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SALMON RIVER BASIN--Continued									
13297680 - HORSE BASIN CREEK NEAR CLAYTON IDAHO (LAT 44 10 40 LONG 114 12 07.01)									
JUL , 1977									
15...	49	25	28	21	.8	5.2	250	242	17
13297700 - ROAD CREEK NEAR CLAYTON IDAHO (LAT 44 11 15 LONG 114 17 09.01)									
JUL , 1977									
13...	29	13	13	18	.5	3.5	130	138	5.8
13298000 - E FK SALMON RIVER NR CLAYTON ID (LAT 44 13 29 LONG 114 17 06)									
NOV , 1976									
07...	--	--	--	--	--	--	--	--	--
DEC									
15...	--	--	--	--	--	--	--	--	--
JAN , 1977									
27...	--	--	--	--	--	--	--	--	--
MAR									
13...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
MAY									
21...	--	--	--	--	--	--	--	--	--
JUN									
23...	--	--	--	--	--	--	--	--	--
JUL									
13...	28	3.8	6.6	14	.3	.7	100	92	11
AUG									
04...	--	--	--	--	--	--	--	--	--
SEP									
13...	--	--	--	--	--	--	--	--	--
HENRYS FORK BASIN--Continued									
440017111085800 - CONANT C NR ASHTON ID (LAT 44 00 17 LONG 111 08 58)									
SEP , 1977									
20...	20	4.6	3.4	10	.2	.9	84	69	1.6
440257111102300 - SQUIRREL C NR ASHTON ID (LAT 44 02 57 LONG 111 10 23)									
SEP , 1977									
20...	28	7.4	2.0	4	.1	1.0	92	75	11
440351111060000 - BOONE C NR ASHTON ID (LAT 44 03 51 LONG 111 06 00)									
SEP , 1977									
20...	13	3.8	2.3	9	.1	1.1	58	48	2.0
440705111150000 - ROCK C AT MOUTH NR WARM R ID (LAT 44 07 05 LONG 111 15 00)									
SEP , 1977									
20...	26	5.3	13	24	.6	2.2	120	98	2.3
440705111150001 - ROBINSON C AB ROCK C NR WARM R ID (LAT 44 07 05 LONG 111 15 00.01)									
SEP , 1977									
20...	10	1.4	18	54	1.4	2.1	56	46	2.6

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
HENRYS FORK BASIN--Continued								
13297680 - HORSE BASIN CREEK NEAR CLAYTON IDAHO (LAT 44 10 40 LONG 114 12 07.01)								
JUL , 1977								
15...	14	.4	38	322	.44	.14	.00	.05
13297700 - ROAD CREEK NEAR CLAYTON IDAHO (LAT 44 11 15 LONG 114 17 09.01)								
JUL , 1977								
13...	7.7	.2	38	193	.26	.31	.00	.08
13298000 - E FK SALMON RIVER NR CLAYTON ID (LAT 44 13 29 LONG 114 17 06)								
NOV , 1976								
07...	--	--	--	--	--	--	--	--
DEC								
15...	--	--	--	--	--	--	--	--
JAN , 1977								
27...	--	--	--	--	--	--	--	--
MAR								
13...	--	--	--	--	--	--	--	--
APR								
13...	--	--	--	--	--	--	--	--
MAY								
21...	--	--	--	--	--	--	--	--
JUN								
23...	--	--	--	--	--	--	--	--
JUL								
13...	1.7	.2	12	113	.15	48.5	.01	.00
AUG								
04...	--	--	--	--	--	--	--	--
SEP								
13...	--	--	--	--	--	--	--	--
440017111085800 - CONANT C NR ASHTON ID (LAT 44 00 17 LONG 111 08 58)								
SEP , 1977								
20...	.9	.5	21	95	.13	--	.06	.03
440257111102300 - SQUIRREL C NR ASHTON ID (LAT 44 02 57 LONG 111 10 23)								
SEP , 1977								
20...	.8	.2	16	112	.15	--	.03	.03
440351111060000 - BOONE C NR ASHTON ID (LAT 44 03 51 LONG 111 06 00)								
SEP , 1977								
20...	.6	.3	18	70	.10	--	.04	.02
440705111150000 - ROCK C AT MOUTH NR WARM R ID (LAT 44 07 05 LONG 111 15 00)								
SEP , 1977								
20...	5.4	1.2	40	155	.21	--	.04	.02
440705111150001 - ROBINSON C AB ROCK C NR WARM R ID (LAT 44 07 05 LONG 111 15 00.01)								
SEP , 1977								
20...	9.4	2.6	41	115	.16	--	.11	.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
HENRYS FORK BASIN--Continued								
440718111182800 - WARM R AB ROBINSON C NR WARM R ID (LAT 44 07 18 LONG 111 18 28)								
SEP , 1977								
19...	1500	--	133	8.6	--	12.0	32	0
442543111211601 - BUFFALO R AB ELK C NR ISLAND PARK ID (LAT 44 25 43 LONG 111 21 16.01)								
SEP , 1977								
09...	0830	--	105	7.6	--	8.5	18	0
443819111155001 - TYGEE C NR BIG SPRINGS ID (LAT 44 38 19 LONG 111 15 50.01)								
SEP , 1977								
08...	1030	--	83	6.7	--	6.5	51	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY, TOTAL (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
440718111182800 - WARM R AB ROBINSON C NR WARM R ID (LAT 44 07 18 LONG 111 18 28)									
SEP , 1977									
19...	10	1.7	15	49	1.2	1.6	56	46	1.2
442543111211601 - BUFFALO R AB ELK C NR ISLAND PARK ID (LAT 44 25 43 LONG 111 21 16.01)									
SEP , 1977									
09...	5.6	.9	17	64	1.8	2.8	71	58	2.8
443819111155001 - TYGEE C NR BIG SPRINGS ID (LAT 44 38 19 LONG 111 15 50.01)									
SEP , 1977									
08...	16	2.6	2.7	10	.2	.8	93	76	2.7

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
440718111182800 - WARM R AB ROBINSON C NR WARM R ID (LAT 44 07 18 LONG 111 18 28)								
SEP , 1977								
19...	6.0	2.3	36	102	.14	--	.08	.01
442543111211601 - BUFFALO R AB ELK C NR ISLAND PARK ID (LAT 44 25 43 LONG 111 21 16.01)								
SEP , 1977								
09...	3.1	3.1	42	112	.15	--	.03	.02
443819111155001 - TYGEE C NR BIG SPRINGS ID (LAT 44 38 19 LONG 111 15 50.01)								
SEP , 1977								
08...	.5	.1	18	89	.12	--	.04	.06

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BEAR RIVER BASIN

10090800 - BATTLE CREEK TRIB NEAR TREASURETON, IDAHO (LAT 42 16 40 LONG 111 48 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 00...	1235	.61	681	24.5	12.5						

10091130 - SWAN LAKE CREEK NR SWAN LAKE, IDAHO (LAT 42 20 31 LONG 111 59 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
APR , 1977 00...	1200	.90	551	7.0	8.0	SEP , 1977 30...	1100	1.1	525	9.0	8.0

10125500 - MALAD RIVER AT WOODRUFF ID (LAT 42 02 00 LONG 112 14 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 21...	1017	71	3500	2.0	10.0	APR , 1977 20...	1432	46	4670	15.5	20.0
DEC 02...	0855	82	3307	-13.0	5.0	MAY 25...	1340	71	4160	9.0	17.0
JAN , 1977 19...	0830	86	2399	-4.5	4.5	JUL 07...	0900	25	6839	15.5	19.0
MAR 10...	0802	116	2667	-4.0	6.0						

TRIBUTARIES BETWEEN GREAT SALT LAKE DESERT AND BEAR RIVER

10172970 - ROCK CREEK NEAR HOLBROOK, IDAHO (LAT 42 13 51 LONG 112 43 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
APR , 1977 21...	0740	1.3	792	9.0	2.0

KOOTENAI RIVER BASIN

12305000 - KOOTENAI RIVER AT LEONIA IDAHO (LAT 48 37 04 LONG 116 02 47)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 07...	1040	8210	--	9.0	10.5	APR , 1977 27...	0935	10500	210	11.0	6.0
NOV 17...	--	6580	--	7.0	9.0	MAY 31...	0950	5180	172	18.5	9.7
JAN , 1977 26...	0930	6800	--	-.5	5.0	JUL 21...	0920	8670	233	18.0	14.0
MAR 09...	0910	8370	134	6.5	4.5	SEP 07...	1005	6550	223	13.5	15.0

12305500 - BOULDER CREEK NR LEONIA ID (LAT 48 35 54 LONG 116 05 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 06...	1250	16	34	11.0	7.5	APR , 1977 28...	--	237	--	11.5	3.0
NOV 24...	1135	26	31	1.0	1.0	JUN 02...	1105	106	18	20.0	8.5
JAN , 1977 21...	1200	18	114	3.0	.0	JUL 13...	0915	18	29	16.0	13.5
MAR 11...	1115	15	32	3.0	1.5	SEP 06...	1120	19	35	20.0	14.0

12306500 - MOYIE RIVER AT EASTPORT, IDAHO (LAT 48 59 56 LONG 116 10 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 04...	1130	140	39	7.0	8.0	MAY , 1977 09...	--	1350	--	18.0	9.0
NOV 01...	--	122	--	11.0	6.0	JUL 14...	1415	146	45	26.0	17.5
JAN , 1977 27...	1400	74	189	-2.0	.5	AUG 23...	--	47	--	21.0	15.5
FEB 22...	--	84	--	4.5	2.0	30...	1100	85	454	15.5	10.5
APR 28...	1100	1250	22	16.5	6.0						

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

KOOTENAI RIVER BASIN--Continued

12307500 - MOYIE RIVER AT EILEEN, IDAHO (LAT 48 46 27 LONG 116 09 26)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976						APR , 1977					
04...	1320	185	49	14.0	9.5	28...	--	1590	--	13.5	6.0
NOV						JUN					
23...	1435	162	49	6.0	4.0	01...	1200	999	44	29.0	14.0
JAN , 1977						JUL					
24...	1310	123	--	.0	.0	14...	1140	185	51	22.5	15.5
MAR						AUG					
09...	1535	201	52	4.5	8.0	30...	1400	129	60	20.5	14.0

12313500 - BALL CREEK NEAR BONNERS FERRY, IDAHO (LAT 48 47 40 LONG 116 24 54)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976						APR , 1977					
06...	1020	8.7	25	10.5	6.0	28...	1305	80	20	18.0	5.0
NOV						JUN					
30...	1450	6.4	32	5.0	.0	01...	1350	73	17	29.0	10.0
JAN , 1977						JUL					
27...	1100	4.4	--	3.0	.5	13...	1315	9.8	25	22.5	13.5
MAR						SEP					
07...	1140	5.6	34	5.0	1.0	06...	1400	7.8	20	19.0	11.5

12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976						APR , 1977					
01...	1030	6.0	32	21.5	9.0	06...	1240	14	37	18.0	3.5
NOV						MAY					
24...	1400	5.6	37	2.0	1.0	26...	1120	32	33	10.5	6.5
JAN , 1977						AUG					
25...	1325	4.7	--	-2.0	.0	10...	1045	3.5	34	25.0	15.0
MAR											
10...	1435	5.0	18	11.5	2.0						

12321500 - BOUNDARY CREEK NEAR PORTHILL, IDAHO (LAT 48 59 50 LONG 116 34 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976						APR , 1977					
01...	1400	42	44	21.0	10.5	06...	1045	46	46	8.0	3.5
NOV						MAY					
03...	--	39	--	2.0	2.0	11...	--	568	--	8.5	5.0
JAN , 1977						JUN					
25...	1100	24	--	.0	.0	28...	1540	74	35	28.0	16.0
FEB						AUG					
24...	--	24	--	5.0	1.0	10...	1320	20	47	28.5	19.0

PEND OREILLE RIVER BASIN

12392000 - CLARK FORK AT WHITEHORSE RAPIDS, NEAR CABINET, I (LAT 48 05 18 LONG 116 04 16)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						JUN , 1977					
16...	1025	13800	195	--	--	03...	0955	29800	165	14.5	14.0
JAN , 1977						JUL					
07...	1230	22600	160	-2.0	3.5	22...	0945	22400	173	22.0	18.0
MAR						AUG					
02...	0950	21600	194	8.0	5.5	19...	0800	596	198	14.0	18.0
APR											
12...	0955	6550	202	11.5	7.5						

12392300 - PACK RIVER NEAR COLBURN, IDAHO (LAT 48 25 12 LONG 116 30 02)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						JUN , 1977					
19...	1200	65	--	--	--	03...	1010	283	22	9.0	8.5
DEC						JUL					
29...	1400	42	65	-1.0	.5	20...	1530	45	45	31.0	22.5
30...	1000	24	55	-1.0	.0	SEP					
FEB , 1977						08...	1545	53	39	16.0	16.0
23...	1430	66	47	8.0	5.0	30...	1200	81	30	10.0	9.5
APR											
22...	0955	258	24	16.5	8.0						

12393600 - BINARCH CREEK NEAR COOLIN IDAHO (LAT 48 28 10 LONG 116 55 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1976					
02...	1055	2.6	39	-1.0	4.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PEND OREILLE RIVER BASIN--Continued

12394000 - PRIEST RIVER NEAR COOLIN, IDAHO (LAT 48 27 07 LONG 116 53 58)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1976 02...	1300	338	44	.0	1.5	JUN , 1977 01...	--	1300	47	--	--
JAN , 1977 06...	1055	242	--	-8.0	.5	JUL 29...	1355	186	32	24.0	21.0
MAR 01...	1135	283	49	9.0	5.0	SEP 08...	1005	212	63	16.0	15.5
APR 19...	1215	682	45	7.0	6.5						

12395000 - PRIEST RIVER NEAR PRIEST RIVER, IDAHO (LAT 48 12 31 LONG 116 54 49)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976 18...	1230	644	66	7.5	5.5	JUN , 1977 01...	1400	1550	53	25.0	15.0
JAN , 1977 06...	1300	351	84	-4.0	.5	JUL 28...	1425	311	94	26.0	21.0
FEB 25...	1030	440	77	2.0	4.0	SEP 07...	1310	336	82	25.0	17.0
APR 19...	1420	947	57	7.0	8.0	30...	1000	430	87	9.5	9.5

12395500 - PEND OREILLE RIVER AT NEWPORT WA (LAT 48 11 00 LONG 117 02 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976 18...	0900	17200	165	-5.0	4.5	APR , 1977 14...	1115	4230	288	12.0	12.0
JAN , 1977 06...	1230	16500	163	-5.0	.0	JUN 01...	0910	7120	129	14.5	13.5
MAR 02...	0845	16700	167	2.0	2.5	JUL 22...	1030	9910	180	23.0	23.0
APR 11...	1015	5210	149	10.0	9.5						

SPOKANE RIVER BASIN

12411000 - COEUR D'ALENE R AB SHOSHONE CK NR PRICHARD, IDA (LAT 47 42 30 LONG 115 58 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 14...	0900	93	66	9.0	8.0	APR , 1977 22...	1000	679	50	17.0	5.0
DEC 01...	1250	85	--	2.0	1.0	JUN 14...	1310	202	55	25.0	17.0
JAN , 1977 11...	1130	70	--	-2.0	.0	AUG 03...	1450	81	67	32.5	27.5
MAR 02...	1005	168	22	2.0	1.5	SEP 15...	1135	66	60	18.0	15.0

12411200 - SHOSHONE CREEK NEAR PRICHARD IDAHO (LAT 47 43 00 LONG 115 53 20.01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 13...	1000	27	59	10.5	6.5

12412600 - N FK COEUR D'ALENE RIVER NR ENAVILLE ID (LAT 47 36 39 LONG 116 14 22.01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 12...	1600	40	42	13.5	11.5

12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44.01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 13...	1200	.89	53	16.0	8.0

12413125 - CANYON CREEK AT WALLACE ID (LAT 47 28 24 LONG 115 54 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 13...	1240	9.7	126	11.0	9.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

SPOKANE RIVER BASIN--Continued

12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 13...	1340	3.4	96	17.5	9.0	APR , 1977 22...	1200	21	80	17.0	6.0
DEC 02...	0940	2.7	96	-2.0	.0	JUN 14...	1530	20	83	21.5	11.0
JAN , 1977 12...	0830	2.1	--	1.0	.0	AUG 03...	1100	5.6	25	21.0	19.0
MAR 01...	1220	4.1	90	4.0	1.5	SEP 14...	1425	3.0	118	14.0	12.0

12413150 - S FK COEUR D'ALENE R AT SILVERTON, ID (LAT 47 28 20 LONG 115 57 00)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 13...	1430	51	178	18.0	10.5	MAY , 1977 09...	1520	302	75	16.0	12.5
DEC 02...	1045	48	211	-2.5	2.0	JUN 15...	0845	169	100	21.0	10.5
JAN , 1977 11...	1500	45	--	-5.0	.0	AUG 03...	1155	58	178	27.5	18.0
MAR 01...	1340	52	232	5.5	5.5	SEP 14...	1315	42	208	20.5	17.0
APR 21...	1615	128	124	13.5	6.5						

12413183 - W FK BIG CREEK NR KELLOGG ID (LAT 47 29 25 LONG 116 04 29.01)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 13...	1410	.01	70	15.0	8.5

12413250 - S FK COEUR D'ALENE RIVER AT KELLOGG ID (LAT 47 32 49 LONG 116 08 09)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
DEC , 1976 01...	1555	66	166	1.0	2.0	JUN , 1977 15...	0930	213	119	21.0	14.0
JAN , 1977 11...	1415	61	--	-5.0	.0	AUG 04...	0800	80	233	19.0	16.0
MAR 01...	1055	90	99	4.0	4.0	SEP 15...	0915	58	160	11.5	12.5
APR 21...	1445	202	114	12.0	7.0						

12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15.01)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 14...	1210	5.1	17	12.5	9.0	APR , 1977 21...	1220	54	119	17.0	3.0

12413800 - FOURTH OF JULY CREEK NEAR CATALDO IDAHO (LAT 47 34 00 LONG 116 26 30.01)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 12...	1455	.61	75	16.0	13.0

12413850 - EVANS CREEK NR ST MARIES ID (LAT 47 26 55 LONG 116 34 02)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 12...	1415	1.7	31	20.0	12.0

12413900 - ST JOE RIVER AB N FK ST JOE RIVER NR AVERY ID (LAT 47 14 29 LONG 115 45 20)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 13...	0915	214	67	7.0	7.5

12413950 - N FK ST JOE RIVER AT MOUTH NR AVERY ID (LAT 47 15 08 LONG 115 49 47)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 13...	1015	52	83	9.0	9.0

12414400 - E FK BIG CREEK NR CALDER ID (LAT 47 18 07 LONG 116 07 05)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
APR , 1977 20...	1430	42	34	12.0	6.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

SPOKANE RIVER BASIN--Continued

12414500 - ST. JOE RIVER AT CALDER, IDAHO (LAT 47 16 30 LONG 116 11 15)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
DEC , 1976					
03...	0935	291	62	.0	.0
JAN , 1977					
18...	1250	487	60	2.0	.0
MAR					
03...	1055	538	54	6.0	.5
APR					
20...	1045	1900	47	15.0	4.5
JUN , 1977					
16...	1120	1770	47	28.0	13.5
AUG					
09...	0840	457	67	19.5	16.5
SEP					
14...	1005	348	66	14.5	16.5

12414900 - ST. MARIES RIVER NEAR SANTA IDAHO (LAT 47 10 35 LONG 116 29 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
DEC , 1976					
02...	1440	56	51	3.5	.0
JAN , 1977					
18...	1525	159	49	4.0	.0
MAR					
02...	1450	114	25	5.5	.5
APR					
21...	0800	233	40	10.0	4.5
JUN , 1977					
15...	1500	142	34	18.0	19.0
AUG					
08...	1045	41	55	27.0	18.0
SEP					
13...	1445	39	58	19.5	19.5
15...	0915	58	160	11.5	12.5

12415150 - BENEWAH CREEK NR ST MARIES ID (LAT 47 20 10 LONG 116 40 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976					
12...	1205	2.0	71	17.0	9.0

12415250 - PLUMMER CREEK NR PLUMMER ID (LAT 47 22 00 LONG 116 47 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976					
12...	1100	.19	111	13.0	11.0

12415350 - WOLF LODGE CREEK NEAR COEUR D ALENE IDAHO (LAT 47 28 20 LONG 116 37 00.01)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976					
13...	1335	5.9	33	12.0	8.5

12418000 - RATHDRUM PRAIRIE CANAL NR HUETTER, IDAHO (LAT 47 42 35 LONG 116 52 05)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAY , 1977					
23...	1200	34	53	11.5	11.0
JUN					
23...	1250	55	69	31.0	20.5
JUL , 1977					
22...	1140	54	64	29.0	20.5
AUG					
24...	1200	53	75	12.5	21.5

SNAKE RIVER MAIN STEM

13011000 - SNAKE RIVER NEAR MORAN (LAT 43 51 31 LONG 110 35 09.01)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976					
14...	1000	322	148	6.5	10.0
NOV					
24...	1225	263	149	3.5	6.0
FEB , 1977					
16...	1105	105	202	-1.0	.0
MAY					
12...	1250	491	161	16.5	8.5
JUN , 1977					
23...	1445	4505	167	28.5	14.5
AUG					
10...	1330	2590	170	34.5	18.0
SEP					
23...	1150	378	150	16.5	13.0

BUFFALO FORK BASIN

13011900 - BUFFALO F AB LAVA C NR MORAN WY (LAT 43 50 14 LONG 110 26 21.01)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976					
11...	1600	--	205	--	9.0
14...	0907	241	179	-5.0	7.0
NOV					
24...	1042	133	225	-.5	.5
JAN , 1977					
05...	1135	125	182	--	.0
FEB					
16...	0800	107	255	10.0	.0
MAR					
31...	0900	100	230	-12.0	.0
MAY , 1977					
12...	1130	544	138	16.5	5.5
JUN					
23...	1725	653	107	17.5	14.5
AUG					
10...	1100	156	188	23.0	17.5
SEP					
23...	1015	146	185	8.0	6.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

SNAKE RIVER MAIN STEM

13018750 - SNAKE RIVER BL FLAT CREEK NR JACKSON WY (LAT 43 22 20 LONG 110 44 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 14...	1605	1890	267	17.0	10.0	JUN , 1977 23...	1050	6810	193	31.0	13.0
FEB , 1977 16...	1445	892	294	3.5	2.0	AUG 09...	2050	3830	224	23.0	19.0
MAY 11...	1340	2330	227	18.5	9.0	SEP 22...	1915	1690	237	7.0	10.0

SALT RIVER BASIN

13027200 - BEAR CANYON NEAR FREEDOM, WYOMING (LAT 42 58 36 LONG 111 11 44)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 20...	1345	.30	420	21.5	9.5

MCCOY CREEK BASIN

13029500 - MCCOY CR AB RESERVOIR NR ALPINE WY (LAT 43 10 50 LONG 111 06 55)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 02...	1315	10	351	26.0	16.5

ELK CREEK BASIN

13030500 - ELK CREEK AB RESERVOIR NR IRWIN ID (LAT 43 19 25 LONG 111 06 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 02...	1540	21	376	30.0	13.0

BIRCH CREEK BASIN

13037600 - BIRCH CREEK NEAR HEISE, IDAHO (LAT 43 36 00 LONG 111 43 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 09...	0910	.84	534	9.5	8.0

SNAKE RIVER MAIN STEM

13038000 - DRY BED FEEDER CANAL NR RIRIE ID (LAT 43 38 21 LONG 112 42 55)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 11...	1350	2270	362	21.0	12.0	MAY , 1977 04...	1000	3710	410	.5	3.0
DEC 08...	1115	350	368	3.5	5.0	JUN 10...	1405	3340	347	21.0	8.5
MAR , 1977 04...	1200	143	792	1.0	2.0	JUL 19...	1420	3590	328	26.0	16.5
APR 11...	1145	13	543	12.0	12.0	SEP 02...	1415	2150	386	31.5	15.5

13038380 - DRY BED NR LEWISVILLE ID (LAT 43 42 41 LONG 112 02 19)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 27...	1020	432	406	-1.0	7.0	MAY , 1977 04...	1102	502	395	4.0	5.0
DEC 23...	1225	127	376	-1.5	.5	JUN 13...	1045	400	441	22.0	11.5
JAN , 1977 25...	1510	87	470	-6.0	.0	JUL 21...	0915	427	396	23.0	14.0
MAR 04...	1350	14	599	.5	1.0	SEP 02...	1040	610	407	20.5	14.0

HENRYS FORK BASIN

13038900 - TARGHEE CR NR MACKS INN ID (LAT 44 38 50 LONG 111 20 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JUN , 1977 01...	1832	38	209	18.5	11.0	SEP , 1977 07...	1445	5.8	233	29.0	12.0

13039500 - HENRYS FORK NEAR LAKE IDAHO (LAT 44 35 42 LONG 111 20 57)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976 03...	1145	43	212	10.0	5.5	APR , 1977 26...	1340	15	264	14.0	12.5
DEC 14...	1145	36	309	-8.0	.0	JUN 01...	1750	44	262	25.0	14.0
JAN , 1977 27...	1340	12	245	-7.0	.0	SEP 07...	1600	23	189	30.0	20.0
MAR 11...	1644	4.9	227	6.5	3.0						

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

HENRYS FORK BASIN--Continued

13042500 - HENRYS FORK NEAR ISLAND PARK IDAHO (LAT 44 24 59 LONG 111 23 41)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						JUN , 1977					
03...	1432	9.9	151	14.5	8.0	01...	1200	704	148	23.0	10.5
DEC						JUL					
14...	0945	426	180	-9.0	2.0	19...	1408	1560	169	22.0	18.5
MAR , 1977						SEP					
11...	1133	149	191	6.0	4.0	09...	0930	A 2030	163	--	14.5
APR											
26...	1035	556	153	17.0	5.5						

13046000 - HENRYS FORK NEAR ASHTON IDAHO (LAT 44 04 30 LONG 111 29 58)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						APR , 1977					
04...	1230	893	136	10.5	6.5	19...	1350	1650	152	13.0	8.0
DEC						JUN					
15...	1140	1200	187	-2.0	.0	10...	1000	1450	298	21.5	17.5
JAN , 1977						JUL					
28...	1318	1120	181	--	.5	12...	1015	2180	153	21.5	18.0
MAR						AUG					
10...	1107	1070	139	1.0	4.5	25...	1400	2150	162	21.0	16.0

13047500 - FALLS RIVER NR SQUIRREL ID (LAT 44 04 07 LONG 111 14 25)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						APR , 1977					
04...	0920	487	159	7.5	5.5	20...	0940	580	169	9.5	6.0
DEC						JUN					
15...	0855	454	187	-8.0	.0	13...	1050	739	119	25.5	14.0
JAN , 1977						JUL					
28...	0920	382	163	-13.0	.0	12...	1250	324	--	22.0	18.0
MAR						AUG					
09...	1040	382	193	7.5	3.0	25...	1130	332	200	18.0	14.5

13049500 - FALLS RIVER NEAR CHESTER IDAHO (LAT 44 01 06 LONG 111 33 57)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						JUN , 1977					
04...	1341	593	192	10.5	8.0	10...	1450	1400	--	18.0	13.5
DEC						JUL					
16...	0852	505	208	-5.0	.0	11...	1220	34	--	22.0	19.5
APR , 1977						AUG					
19...	0930	609	206	6.5	6.5	24...	1100	238	222	26.0	15.5

13050800 - MOOSE CREEK NEAR VICTOR, IDAHO (LAT 43 33 48 LONG 111 04 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977					
24...	0920	23	254	7.5	4.0

13052200 - TETON RIVER AB LEIGH CREEK NR DRIGGS ID (LAT 43 46 54 LONG 111 12 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						JUN , 1977					
25...	1404	286	366	4.0	2.5	06...	1550	394	298	26.5	13.5
JAN , 1977						AUG					
11...	1238	181	304	--	.0	11...	1045	172	330	20.5	15.5
FEB						SEP					
17...	0805	182	225	-13.0	.0	24...	1150	174	345	6.0	7.5

13054200 - TETON RIVER BL BADGER CREEK NR NEWDALE ID (LAT 43 55 00 LONG 111 16 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						JUN , 1977					
09...	1630	494	353	9.0	6.0	21...	1240	390	251	20.5	15.0
APR , 1977											
29...	1047	391	346	23.0	10.0						

13054300 - BITCH CREEK NR LAMONT ID (LAT 43 56 17 LONG 111 10 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976						JUN , 1977					
29...	1050	31	101	-5.0	2.0	24...	1018	159	122	25.5	11.5
FEB , 1977						AUG					
17...	1100	28	238	-1.0	.0	11...	1210	35	196	23.0	17.0
APR						SEP					
07...	0905	30	219	1.0	2.5	19...	1230	35	190	15.0	11.0
MAY											
24...	1210	243	--	14.0	7.0						

A Mean daily discharge.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
HENRYS FORK BASIN--Continued											
13054500 - CANYON CREEK NEAR NEWDALE, IDAHO (LAT 43 48 00 LONG 111 26 00)											
SEP , 1977											
19...	1440	9.4	443	20.0	15.0						
13054600 - CANYON CREEK AT HWY 33 NR NEWDALE ID (LAT 43 50 44 LONG 111 26 41)											
NOV , 1976						JUN , 1977					
29...	1350	4.0	410	-2.5	.0	24...	1330	3.2	293	27.0	19.0
FEB , 1977						SEP					
02...	1124	19	403	-9.0	.0	19...	1550	.30	455	22.0	11.5
13055320 - MOODY CREEK NR NEWDALE ID (LAT 43 49 50 LONG 111 38 10)											
SEP , 1977											
24...	1425	2.4	310	15.0	8.5						
SNAKE RIVER BASIN											
13062638 - STEWART CANYON AB TRIB #1 NR HENRY ID (LAT 42 41 32 LONG 111 13 28)											
OCT , 1976											
21...	1045	.90	275	5.5	4.0						
13062640 - STEWART CANYON NR MOUTH NR HENRY ID (LAT 42 41 39 LONG 111 12 00)											
OCT , 1976											
21...	1155	.80	307	14.0	3.5						
13062646 - YELLOW JACKET C TRIB TO DIAMOND C NR HENRY ID (LAT 42 46 14 LONG 111 14 44)											
OCT , 1976											
20...	1440	.40	392	12.5	7.0						
13062648 - CABIN C TRIB TO DIAMOND C NR HENRY ID (LAT 42 46 28 LONG 111 14 15)											
OCT , 1976											
20...	1535	.40	331	13.0	5.5						
13062650 - DIAMOND CREEK BL USFS BOUNDARY NR HENRY (LAT 42 46 22 LONG 111 15 01)											
OCT , 1976											
20...	1235	15	351	13.0	6.5						
13062654 - KENDALL CANYON AB DIVERSIONS NR SODA SPRINGS ID (LAT 42 46 43 LONG 111 17 15)											
OCT , 1976											
20...	1945	2.3	303	.5	4.5						
13062660 - TIMOTHY CREEK AT USFS BOUNDARY NR HENRY ID (LAT 42 48 38 LONG 111 15 22)											
OCT , 1976											
20...	1650	8.6	365	13.0	5.0						
13062680 - LANES AB SHEEP C NR HENRY ID (LAT 42 52 23 LONG 111 18 40)											
OCT , 1976											
19...	1540	3.3	302	17.5	5.5						
13062683 - SHEEP C AT NAT FOREST BOUNDARY NR HENRY ID (LAT 42 51 47 LONG 111 20 03)											
OCT , 1976											
19...	1355	6.7	331	10.5	.0						
13062684 - SHEEP C AT MOUTH NR HENRY ID (LAT 42 51 30 LONG 111 19 08)											
OCT , 1976											
19...	1210	4.3	396	8.0	4.0						

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SNAKE RIVER BASIN--Continued											
13062686 - BIG SPRING TRIB TO DIAMOND C NR HENRY ID (LAT 42 48 36 LONG 111 17 50)											
OCT , 1976 20...	1130	6.0	350	11.5	8.5						
13062688 - MILL CREEK AB DIVERSIONS NR HENRY ID (LAT 42 48 32 LONG 111 18 32)											
OCT , 1976 19...	1810	2.2	292	.5	5.5						
13062690 - BLACKFOOT R AT BRIDGE AB ANGUS C NR HENRY ID (LAT 42 49 26 LONG 111 19 21)											
OCT , 1976 20...	0915	58	242	1.5	1.0						
BLACKFOOT RIVER BASIN											
13062700 - ANGUS CREEK NR HENRY ID (LAT 42 49 43 LONG 111 20 18)											
OCT , 1976 19...	1025	1.2	327	1.0	1.0						
13062795 - DRY VALLEY CREEK AT USFS BOUNDARY (LAT 42 43 12 LONG 111 18 43)											
OCT , 1976 20...	1358	.30	412	12.0	4.0						
13062820 - MAYBE CREEK BL SEDIMENT POND (LAT 42 44 44 LONG 111 16 04)											
OCT , 1976 20...	1012	.10	373	-2.5	1.5						
13062852 - DRY VALLEY C BL MAYBE C NR SODA SPRINGS ID (LAT 42 45 30 LONG 111 20 17)											
OCT , 1976 20...	1250	.20	364	13.0	2.0						
13062870 - SLUG C BL HORSESHOE SPRING NR SODA SPRINGS ID (LAT 42 36 02 LONG 111 18 01)											
OCT , 1976 20...	1810	.20	370	2.5	3.5						
13062875 - GOODHEART C AB GOODHEART SPR NR SODA SPRINGS ID (LAT 42 40 56 LONG 111 18 04)											
OCT , 1976 20...	1330	.10	404	14.5	6.0						
13062876 - GOODHEART SPRING NR SODA SPRINGS ID (LAT 42 41 06 LONG 111 18 08)											
OCT , 1976 20...	1450	.04	--	14.5	8.0						
13062878 - GOODHEART C NR MOUTH NR SODA SPRINGS (LAT 42 40 25 LONG 111 19 53)											
OCT , 1976 20...	1630	.40	343	15.5	1.5						
13062880 - SLUG CREEK BL GOODHEART CREEK NR SODA SPRINGS ID (LAT 42 41 03 LONG 111 21 13)											
OCT , 1976 20...	1715	2.4	345	13.0	5.5						
13062890 - JOHNSON CREEK AB DRY FK NR SODA SPRINGS ID (LAT 42 40 34 LONG 111 24 27)											
OCT , 1976 19...	1440	.50	343	7.0	5.5						

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
BLACKFOOT RIVER BASIN--Continued											
13062900 - JOHNSON CREEK BL WOOD CANYON NR SODA SPRINGS ID (LAT 42 41 58 LONG 111 23 16)											
OCT , 1976											
19...	1530	1.3	328	11.5	3.5						
13062905 - SLUG CREEK AT SWEET RANCH NR SODA SPRINGS ID (LAT 42 42 24 LONG 111 22 04)											
OCT , 1976											
21...	0940	7.1	387	2.5	1.0						
13062920 - SLUG CREEK NR MOUTH NR SODA SPRINGS ID (LAT 42 45 05 LONG 111 23 55)											
OCT , 1976											
21...	1120	12	389	13.0	5.0						
13062950 - TRAIL C AB FINLAYSON RANCH NR SODA SPRINGS ID (LAT 42 43 02 LONG 111 26 18)											
OCT , 1976											
19...	1310	3.3	322	9.5	7.0						
13062960 - TRAIL CREEK NR MOUTH NR SODA SPRINGS ID (LAT 42 45 30 LONG 111 26 47)											
OCT , 1976											
19...	1015	3.7	338	-3.0	2.5						
13062970 - TRAIL CREEK TRIB AB MEADOW NR SODA SPRINGS ID (LAT 42 45 29 LONG 111 27 40)											
OCT , 1976											
19...	1110	.20	--	5.0	1.5						
13062990 - SMALL STREAM DRAINING N END ASPEN RANGE NR SODA (LAT 42 48 01 LONG 111 31 58)											
OCT , 1976											
21...	1530	.20	--	12.0	8.5						
13063360 - L BLACKFOOT R AT HEAD NR HENRY ID (LAT 42 56 32 LONG 111 26 08)											
OCT , 1976											
19...	1640	.10	570	10.0	6.0						
13063370 - L BLACKFOOT R BL POND NR HENRY ID (LAT 42 55 12 LONG 111 26 27)											
OCT , 1976											
19...	1715	1.3	298	10.0	5.5						
13063380 - S FK L BLACKFOOT R FORKS NR HENRY ID (LAT 42 52 33 LONG 111 26 38)											
OCT , 1976											
19...	1440	.30	585	15.0	5.5						
13063385 - S FK L BLACKFOOT R AT RD XING NR HENRY ID (LAT 42 53 14 LONG 111 26 38)											
OCT , 1976											
19...	1520	.40	357	15.0	5.0						
13063390 - SPRING TRIB L BLACKFOOT R ENOCH VALLEY NR HENRY (LAT 42 54 30 LONG 111 26 49)											
OCT , 1976											
19...	1540	.40	934	12.0	16.0						
13063500 - LITTLE BLACKFOOT RIVER AT HENRY ID (LAT 42 54 30 LONG 111 31 45)											
OCT , 1976											
21...	1250	15	858	11.5	11.5						

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BLACKFOOT RIVER BASIN--Continued

13064500 - MEADOW C NR HENRY IDAHO (LAT 43 55 30 LONG 111 30 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 19...	1805	16	398	9.0	5.5						

13066000 - BLACKFOOT RIVER NEAR SHELLEY, IDAHO (LAT 43 16 00 LONG 112 03 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 01...	1030	346	378	19.5	11.0	APR , 1977 25...	0830	68	414	12.0	9.5
NOV 19...	1115	312	421	4.0	3.5	JUN 08...	1155	926	324	26.0	18.0
DEC 29...	0900	151	431	-10.5	.0	JUL 18...	1410	629	461	31.0	19.0
FEB , 1977 03...	0830	113	468	-13.0	.0	AUG 30...	1230	795	--	19.5	15.0
MAR 17...	0835	76	454	-4.0	1.0						

13066900 - CEDAR CR NR GOSHEN ID (LAT 43 18 30 LONG 112 03 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 23...	--	6.0	459	--	--

PORTNEUF RIVER BASIN

13072000 - PORTNEUF RIVER NR PEBBLE ID (LAT 42 47 12 LONG 111 58 47)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 20...	1526	61	805	13.5	90.0	MAY , 1977 24...	1335	109	564	12.0	11.0
NOV 30...	1325	50	936	3.0	5.0	JUL 05...	1510	107	485	19.0	17.5
JAN , 1977 17...	1415	48	917	3.0	7.0	AUG 17...	0744	54	625	21.0	19.0
MAR 07...	1420	58	869	13.5	9.0	SEP 27...	1455	23	934	23.0	16.0
APR 19...	1515	54	873	10.0	15.0						

13072890 - DEMPSEY CREEK NR LAVA HOT SPRINGS, IDAHO (LAT 42 36 28 LONG 112 01 15)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
APR , 1977 19...	1420	3.1	468	9.0	11.0

13073700 - ROBBERS ROOST CREEK NEAR MCCAMMON, IDAHO (LAT 42 42 20 LONG 112 12 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 28...	1555	.01	910	18.0	15.0

13075300 - E FK MINK CREEK NR POCATELLO ID (LAT 42 44 20 LONG 112 23 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 28...	1705	.37	529	16.5	10.5

13075600 - N FK POCATELLO CREEK NR POCATELLO ID (LAT 42 53 10 LONG 112 23 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 23...	1320	.57	889	14.5	9.5

BANNOCK CREEK BASIN

13076000 - BANNOCK CREEK BL MOONSHINE CREEK NR PAULINE ID (LAT 42 41 40 LONG 112 35 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 14...	1450	13	650	28.0	15.0

13076100 - RATTLESNAKE CREEK NR POCATELLO ID (LAT 42 42 00 LONG 112 33 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 14...	1415	6.9	575	28.0	14.0

SNAKE RIVER BASIN

13076400 - MICHAUD CANAL AT AMERICAN FALLS IDAHO (LAT 42 46 45 LONG 112 52 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
APR , 1977 22...	0840	18	449	7.5	5.5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

ROCK CREEK BASIN

13077400 - ROCK CREEK NR ROCKLAND ID (LAT 42 30 40 LONG 112 50 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 14...	2000	3.9	854	21.0	15.0						

RAFT RIVER BASIN

13077659 - RAFT RIVER NEAR YOST, UTAH (LAT 41 56 50 LONG 113 42 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 14...	1610	2.7	512	22.0	16.0						

13078200 - ONE MILE CREEK NR MALTA ID (LAT 42 04 00 LONG 113 27 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JAN , 1977 27...	1230	14	120	-3.5	.5						

13078205 - RAFT RIVER BL ONE MILE CREEK NR MALTA ID (LAT 42 04 13 LONG 113 26 37)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976 04...	1245	8.5	1310	8.5	7.0	MAY , 1977 19...	1030	14	1190	4.0	7.0
DEC 16...	1400	20	1160	2.0	.0	JUN 17...	1100	16	1220	14.5	15.5
JAN , 1977 27...	1230	14	1200	-3.5	.5	JUL 26...	1020	7.5	1260	20.0	20.5
MAR 03...	1300	13	937	-2.0	5.0	SEP 15...	1645	7.3	1220	17.0	16.0
APR 14...	1200	18	1170	7.0	11.0						

GOOSE CREEK BASIN

13084400 - BIRCH CREEK AB FEEDER CANAL NR OAKLEY ID (LAT 42 10 40 LONG 113 49 18)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
MAR , 1977 02...	1000	4.3	319	-6.0	.0	SEP , 1977 14...	1130	1.6	369	15.0	12.5

SNAKE RIVER BASIN

13084850 - F MAIN DRAIN NR RUPERT, IDAHO (LAT 42 42 14 LONG 113 41 27)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 22...	1600	3.5	676	10.0	11.0						

DIVERSIONS FROM SNAKE RIVER BETWEEN GOOS~~E CREEK~~ AND SNAKE RIVER AT MILNER

13087000 - NORTH SIDE TWIN FALLS CANAL AT MILNER IDAHO (LAT 42 31 47 LONG 114 01 11)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JUN , 1977 30...	1420	2140	442	25.0	19.5						

DRY CREEK BASIN

13088500 - BIG COTTONWOOD CREEK NEAR OAKLEY, IDAHO (LAT 42 16 50 LONG 114 02 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1976 15...	1415	1.7	124	-3.0	1.0	SEP , 1977 14...	1010	.4	151	18.0	12.5

ROCK CREEK BASIN

13093095 - ROCK CREEK NR MOUTH NR TWIN FALLS IDAHO (LAT 42 37 25 LONG 114 31 58)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976 05...	1030	213	811	6.5	7.0	MAY , 1977 17...	0925	213	636	5.5	9.0
DEC 17...	0820	148	856	-12.0	3.0	JUN 15...	0930	263	564	15.0	11.5
JAN , 1977 28...	0900	102	891	-7.5	2.0	JUL 28...	1220	268	800	36.0	18.0
MAR 04...	1130	87	908	-2.0	6.0	SEP 16...	1300	241	830	21.5	14.0
APR 12...	1500	123	652	10.0	15.0						

SNAKE RIVER MAIN STEM

13094000 - SNAKE RIVER NEAR BUHL, IDAHO (LAT 42 39 58 LONG 114 42 41)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1976 05...	1600	5510	647	10.0	8.0	JUN , 1977 19...	1100	2000	660	16.0	15.0
JAN , 1977 30...	1330	6690	547	-5.0	1.0	SEP 16...	1545	2040	711	17.0	15.0
APR 15...	0930	1930	624	7.0	10.0						

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
BOX CANYON SPRINGS BASIN											
13095500 - BOX CANYON SPR NR WENDELL ID (LAT 42 42 25 LONG 114 48 45)											
NOV , 1976						APR , 1977					
00...	0930	408	--	5.0	11.5	15...	1400	372	393	16.0	14.0
DEC						MAY					
19...	1000	401	383	-8.5	11.5	21...	0940	370	388	10.5	13.0
JAN , 1977						SEP					
30...	1015	397	360	-8.0	11.0	17...	1000	--	--	14.0	15.5
MAR											
05...	1530	375	--	7.5	13.0						
SALMON FALLS CREEK BASIN											
13104800 - SHOSHONE CREEK AT MOUTH NR SAN JACINTO NV (LAT 41 56 36 LONG 114 41 02)											
SEP , 1977											
12...	1810	13	167	21.0	20.0						
13106000 - SALMON RIVER CANAL CO CANAL NR ROGERSON IDAHO (LAT 42 13 10 LONG 114 44 20)											
JUL , 1977											
26...	1540	403	215	31.0	17.5						
MUD LAKE-LOST RIVER BASINS											
13108200 - WEST CAMAS CREEK NR KILGORE, IDAHO (LAT 44 28 40 LONG 112 02 40)											
SEP , 1977											
08...	1226	4.4	203	16.0	10.5						
13112300 - BEAVER CREEK AT HUMPHREY, IDAHO (LAT 44 28 40 LONG 112 13 30)											
SEP , 1977											
08...	1346	2.5	425	15.0	13.5						
13112900 - HUNTLEY CANYON AT SPENCER, IDAHO (LAT 44 21 50 LONG 112 11 00)											
SEP , 1977											
08...	1050	.49	196	9.5	25.0						
13114000 - BEAVER CREEK NEAR CAMAS IDAHO (LAT 44 00 27 LONG 112 13 25)											
APR , 1977											
08...	1148	55	282	15.0	2.0						
13116000 - MEDICINE LODGE CREEK AT ELLIS RANCH NR ANGORA ID (LAT 44 17 30 LONG 112 30 05)											
SEP , 1977											
08...	1610	100	458	23.0	13.0						
13117020 - BIRCH CREEK AT BLUE DOME INN NR RENO ID (LAT 44 09 14 LONG 112 54 24)											
OCT , 1976						SEP , 1977					
05...	1400	85	307	8.5	6.5	12...	1035	61	356	17.0	7.5
13117030 - BIRCH CREEK AT EIGHT MILE CANYON RD NR RENO ID (LAT 44 04 49 LONG 112 52 30)											
OCT , 1976						SEP , 1977					
05...	1150	60	323	5.0	5.[illegible]	12...	1215	43	338	35.0	11.0
13117200 - MAIN FORK NEAR GOLDBURG, IDAHO (LAT 44 24 06 LONG 113 24 18)											
SEP , 1977											
26...	1535	12	52	5.0	5.5						
13117600 - DRY CREEK BL DRY CREEK RES NR CLYDE, IDAHO (LAT 44 09 30 LONG 113 31 45)											
SEP , 1977											
26...	1500	16	290	11.0	13.0						

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

MUD LAKE-LOST RIVER BASINS--Continued

13118400 - WET CREEK BL COAL CREEK NR MACKAY ID (LAT 44 02 49 LONG 113 27 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP . 1977											
26...	1240	4.8	272	4.0	7.0						

13119500 - BLAINE COUNTY INVESTMENT CO'S CANAL NR HOWE IDA (LAT 43 52 50 LONG 113 05 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT . 1976						MAY . 1977					
20...	1330	13	329	10.0	5.0	18...	0950	12	325	10.0	7.0
APR . 1977						JUN					
12...	0920	34	450	7.0	4.5	16...	1020	84	291	19.5	12.5

13120000 - N FK BIG LOST RIVER AT WILD HORSE NR CHILLY ID (LAT 43 55 59 LONG 114 06 47)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV . 1976						MAY . 1977					
03...	1400	41	173	11.0	6.5	17...	1525	61	202	10.0	5.0
DEC						JUN					
18...	1505	29	206	12.5	3.0	22...	1030	159	171	19.0	9.0
JAN . 1977						AUG					
26...	1525	19	202	2.0	3.0	07...	1315	61	191	22.0	11.0
MAR						SEP					
10...	1050	12	198	-2.5	1.0	16...	1155	31	173	14.5	6.0
APR											
12...	1215	25	208	14.5	7.5						

13120500 - BIG LOST RIVER AT HOWELL RANCH NR CHILLY ID (LAT 43 59 54 LONG 114 01 12)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV . 1976						MAY . 1977					
03...	1010	131	159	3.5	2.5	17...	1745	195	165	9.0	6.0
DEC						JUN					
18...	1715	97	204	-1.0	.0	22...	1305	498	128	21.0	11.5
JAN . 1977						AUG					
25...	1330	50	199	5.0	2.0	07...	1445	159	160	20.0	16.0
MAR						SEP					
10...	1350	63	197	-2.0	.0	16...	1230	89	179	10.0	8.5
APR											
13...	1045	115	149	13.0	4.5						

SNAKE RIVER MAIN STEM

13135000 - SNAKE R BL LOWER SALMON FALLS NR HAGERMAN ID (LAT 42 50 55 LONG 114 54 02)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV . 1976						JUN . 1977					
03...	1500	9330	514	12.0	9.5	14...	1445	6130	515	15.0	15.0
JAN . 1977						SEP					
25...	1300	10500	494	-3.0	5.0	17...	1135	5740	564	18.5	15.5
APR											
11...	1345	5550	454	12.0	14.5						

BIG WOOD RIVER BASIN

13135200 - PRAIRIE CREEK NEAR KETCHUM, IDAHO (LAT 43 49 00 LONG 114 35 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP . 1977											
22...	0900	9.9	689	1.5	3.5						

13137000 - WARM SPR CREEK AT GUYER HOT SPR NR KETCHUM ID (LAT 43 40 58 LONG 114 24 24)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP . 1977											
22...	1645	30	243	2.0	12.0						

13141220 - MONUMENT GULCH NR FAIRFIELD ID (LAT 43 12 36 LONG 114 45 09)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR . 1977						JUL . 1977					
22...	1640	.39	64	10.0	6.0	12...	1300	.07	64	26.0	25.5
APR						AUG					
14...	1111	.19	57	9.5	8.0	10...	1135	.08	70	23.0	19.5
MAY						SEP					
11...	1230	.18	58	12.0	10.0	01...	1550	.09	57	18.0	23.0
JUN						09...	1200	.09	65	19.5	15.0
14...	1616	.12	65	19.0	17.0						

BIG WOOD RIVER BASIN--Continued

13141230 - COW CREEK AB RESERVOIR NR HILL CITY ID (LAT 43 21 00 LONG 115 06 02)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR • 1977					
22...	1500	1.1	105	14.0	2.5
APR					
11...	1457	.77	31	15.5	10.0
MAY					
09...	1310	.52	122	14.5	9.5
JUN					
13...	1312	.08	149	22.0	16.5
JUL • 1977					
11...	1315	<.01	181	23.5	17.0
AUG					
10...	1305	<.01	--	--	--
SEP					
08...	1015	<.01	--	--	--

13141250 - CHIMNEY CREEK NR CORRAL ID (LAT 43 23 17 LONG 114 59 59)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR • 1977					
22...	1400	2.0	140	16.0	7.0
APR					
11...	1620	2.3	150	13.0	12.0
MAY					
09...	1435	1.8	143	13.5	9.5
JUN					
13...	1416	1.0	161	22.0	14.0
JUL • 1977					
11...	1400	.81	155	23.5	14.5
AUG					
10...	1345	.71	165	28.0	16.0
SEP					
01...	1730	.78	168	19.5	14.0
08...	1110	1.0	163	15.5	12.0

13141270 - E FK CORRAL CREEK NR CORRAL ID (LAT 43 24 20 LONG 114 55 24)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR • 1977					
22...	1130	2.6	97	14.0	3.0
APR					
13...	1245	3.9	76	14.0	5.5
MAY					
09...	1620	4.3	96	13.5	9.0
JUN					
13...	1546	2.9	92	22.5	16.5
JUL • 1977					
11...	1545	1.2	101	25.5	18.0
AUG					
10...	1500	.82	103	28.0	19.5
SEP					
02...	1415	1.1	100	25.0	16.5
08...	1250	.87	114	21.5	13.0

13141345 - SOLDIER CREEK AB FREE GOLD CR NR FAIRFIELD ID (LAT 43 27 52 LONG 114 48 16)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR • 1977					
21...	1410	4.9	97	6.5	3.0
APR					
12...	1604	9.1	85	15.5	8.5
MAY					
10...	1210	13	86	7.5	5.5
JUN					
14...	1308	11	68	14.0	11.5
JUL • 1977					
12...	1130	3.5	75	22.0	12.5
AUG					
11...	1345	1.5	88	24.0	17.0
SEP					
01...	1230	2.0	81	16.5	12.0
08...	1440	.91	93	21.5	15.5
10...	1345	.98	95	21.0	14.0

13141350 - SOLDIER CREEK NEAR FAIRFIELD IDAHO (LAT 43 26 44 LONG 114 48 27)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP • 1977					
22...	1430	2.9	631	7.5	9.5

13141360 - DAIRY CREEK NR CORRAL ID (LAT 43 15 10 LONG 114 57 26)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR • 1977					
23...	0915	.36	135	5.0	.5
APR					
13...	1439	.27	66	12.0	10.0
MAY					
11...	1130	.27	97	4.5	7.0
JUN					
14...	1325	<.01	--	--	--
JUL • 1977					
12...	1300	<.01	--	--	--
AUG					
18...	0940	<.01	--	--	--
SEP					
09...	1125	<.01	--	--	--

13141365 - MCKINNEY CREEK NR FAIRFIELD ID (LAT 43 10 37 LONG 114 45 09)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR • 1977					
23...	1100	.14	88	11.0	2.0
APR					
14...	0919	.09	102	3.5	5.5
MAY					
10...	1010	.14	110	7.0	9.5
JUN					
14...	1000	<.01	--	--	--
JUL • 1977					
12...	1400	<.01	--	--	--
AUG					
17...	1030	<.01	--	--	--
SEP					
10...	1145	<.01	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
BIG WOOD RIVER BASIN--Continued											
13141445 - ELK CREEK NR FAIRFIELD ID (LAT 43 24 00 LONG 114 38 06)											
MAR . 1977 21...	1615	1.2	170	4.5	6.5	JUL . 1977 12...	0925	.18	204	19.0	10.5
APR 12...	1326	1.2	182	16.5	13.0	AUG 12...	1210	.08	213	26.0	18.0
MAY 10...	1350	1.4	189	4.0	8.0	SEP 01...	1100	.16	206	9.5	9.0
JUN 14...	1153	.67	204	17.0	11.0	08...	1530	.06	219	21.0	19.0
13141475 - WILLOW CREEK NR FAIRFIELD ID (LAT 43 24 44 LONG 114 34 30)											
MAR . 1977 22...	1000	5.3	206	6.0	1.0	JUL . 1977 13...	0945	2.9	133	19.0	13.5
APR 12...	1223	9.0	197	13.0	7.5	AUG 12...	1045	.35	244	23.0	14.0
MAY 12...	1201	12	202	14.0	7.0	SEP 09...	1020	.12	249	15.0	9.5
JUN 14...	0940	14	220	13.5	10.0						
13141600 - CAMP CREEK NR FAIRFIELD ID (LAT 43 22 46 LONG 114 30 54)											
MAR . 1977 22...	0840	1.5	157	-2.5	.0	JUL . 1977 12...	0900	<1.0	--	--	--
APR 12...	1025	2.6	160	14.5	3.0	AUG 17...	1110	<.01	--	--	--
MAY 11...	0900	3.1	177	1.0	4.0	SEP 09...	0830	<.01	--	--	--
JUN 14...	0715	.90	181	8.5	10.0						
13142500 - BIG WOOD R BELOW MAGIC DAM NR RICHFIELD IDAHO (LAT 43 15 00 LONG 114 21 30)											
OCT . 1976 21...	1120	5.8	278	8.0	8.5	JUN . 1977 14...	1005	764	345	21.5	16.0
JAN . 1977 15...	1130	4.9	282	3.0	5.5	JUL 21...	1000	3.1	330	20.0	15.0
APR 15...	1010	7.0	290	11.0	10.0	AUG 28...	1120	2.3	324	20.5	12.5
MAY 20...	1227	560	279	18.0	11.5	SEP 24...	1025	197	426	6.5	11.0
13147300 - MULDOON CREEK NEAR GARFIELD GUARD STATION, ID (LAT 43 34 08 LONG 113 54 50)											
SEP . 1977 23...	1100	.87	126	5.0	8.5						
13147900 - LITTLE WOOD RIVER AB HI FIVE CREEK NR CAREY ID (LAT 43 29 30 LONG 114 03 30)											
APR . 1977 11...	1505	65	227	17.0	11.0	JUL . 1977 22...	0940	34	256	16.0	13.5
MAY 17...	1450	54	297	5.0	10.0	AUG 27...	0830	29	292	3.0	7.5
JUN 15...	1125	133	172	19.0	11.0	SEP 23...	1315	26	267	9.0	8.5
13149000 - FISH CREEK AB FISH CR DAM NEAR CAREY IDAHO (LAT 43 26 20 LONG 113 50 30)											
SEP . 1977 26...	0915	4.6	243	6.0	6.0						
13150400 - LOVING CREEK NR GANNETT ID (LAT 43 20 02 LONG 114 09 06)											
SEP . 1977 25...	0830	93	374	7.0	9.0						

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BIG WOOD RIVER BASIN--Continued

13153000 - KING HILL CANAL NR HAGERMAN, IDAHO (LAT 42 52 05 LONG 114 54 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
APR , 1977 11...	1100	270	365	17.0	14.0	JUL , 1977 30...	0925	341	376	20.0	15.5
MAY 16...	1300	307	352	18.0	15.0	SEP 18...	1010	272	374	11.5	15.0
JUN 14...	1045	308	367	14.0	13.0						

CLOVER CREEK BASIN

13154000 - CLOVER CREEK NEAR BLISS, IDAHO (LAT 43 01 30 LONG 115 00 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
MAR , 1977 07...	1735	7.5	407	12.5	9.5	SEP , 1977 19...	1105	1.1	365	18.0	15.0
JUN 06...	1340	1.0	363	34.0	30.0						

LITTLE CANYON CREEK BASIN

13155300 - L CANYON CR AT STOUT CROSSING NR GLENNS FERRY ID (LAT 43 09 14 LONG 115 18 32)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
MAR , 1977 07...	1540	1.1	56	7.5	3.5	JUN , 1977 06...	1100	.35	77	29.5	16.5

BRUNEAU RIVER BASIN

13162410 - BUCK CREEK NEAR MURPHY HOT SPRINGS, IDAHO (LAT 42 00 30 LONG 115 25 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 13...	1100	.41	307	18.0	11.5

13162500 - E FK JARBIDGE RIVER NR THREE CREEK ID (LAT 42 02 00 LONG 115 22 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 13...	1240	11	74	20.0	14.5

13167500 - EAST FORK BRUNEAU RIVER NEAR HOT SPRING, IDAHO (LAT 42 33 25 LONG 115 30 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JUL , 1977 19...	1400	5.3	227	24.5	21.0

POISON CREEK BASIN

13171700 - POISON CREEK NEAR GRANDVIEW, IDAHO (LAT 42 45 03 LONG 116 18 11)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
MAR , 1977 29...	1515	.28	255	2.5	4.5

BOISE RIVER BASIN

13184200 - ROARING RIVER NEAR ROCKY BAR, IDAHO (LAT 43 42 20 LONG 115 27 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
APR , 1977 07...	1510	18	56	21.0	5.0	SEP , 1977 26...	1425	8.7	70	15.0	8.5
JUN 23...	1200	17	46	26.0	13.5						

13184500 - N FK BOISE RIVER NR TWIN SPRING ID (LAT 43 42 45 LONG 115 37 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1976 06...	1230	258	87	10.0	8.0	MAY , 1977 06...	1305	362	--	6.0	4.5
JAN , 1977 10...	1100	98	114	-8.0	.0	JUN 07...	1540	883	66	30.0	17.0
FEB 12...	1315	156	94	12.0	3.0	JUL 22...	1120	173	86	29.0	20.5
APR 07...	1155	289	93	19.0	6.0	AUG 31...	1150	175	91	14.5	12.5

13184800 - BEAVER CREEK NR LOWMAN ID (LAT 43 58 20 LONG 115 36 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1977 27...	1225	2.2	94	14.5	6.5

13184955 - SHEEP CREEK AT MOUTH NR TWIN SPRINGS ID (LAT 43 41 45 LONG 115 39 38)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JUN , 1977 23...	1400	19	57	32.0	14.0	SEP , 1977 26...	1550	13	76	17.0	13.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BOISE RIVER BASIN--Continued

13185500 - COTTONWOOD CREEK AT ARROWROCK RESERVOIR ID (LAT 43 37 56 LONG 115 49 25)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
26...	1630	E1.9	140	19.0	14.5

13186500 - LIME CREEK NEAR BENNETT, IDAHO (LAT 43 25 00 LONG 115 16 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
JUN , 1977					
22...	1100	22	135	22.0	15.0

13187000 - FALL CREEK NEAR ANDERSON RANCH DAM, IDAHO (LAT 43 26 00 LONG 115 23 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
JUN , 1977						SEP , 1977					
22...	1610	15	88	27.0	20.0	21...	1635	9.7	810	10.5	9.5

13192500 - RATTLESNAKE CREEK NR LENOX ID (LAT 43 34 00 LONG 115 45 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
JUN , 1977					
24...	1600	8.0	95	20.0	14.0

13193500 - GROUSE CREEK NR ARROWROCK DAM ID (LAT 43 34 40 LONG 115 54 33)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
26...	1720	E.10	217	21.5	15.5

13196500 - BANNOCK CREEK NEAR IDAHO CITY, IDAHO (LAT 43 48 30 LONG 115 46 25)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1310	E.70	160	16.0	9.0

13199800 - GRIMES CREEK AT MOUTH NR IDAHO CITY, IDAHO (LAT 43 43 36 LONG 115 57 09)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1410	26	116	19.5	15.0

13200500 - ROBIE CREEK NR ARROWROCK DAM ID (LAT 43 37 49 LONG 115 59 55)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1445	E.60	137	21.0	14.0

13204800 - COTTONWOOD CREEK NEAR BOISE, IDAHO (LAT 43 36 59 LONG 116 09 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
APR , 1977					
06...	1430	1.3	120	25.5	15.0

13205500 - BOISE RIVER AT BOISE, IDAHO (LAT 43 36 33 LONG 116 12 27)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976						APR , 1977					
04...	1515	470	69	16.0	16.0	16...	1440	698	--	18.5	8.0
19...	1000	165	104	3.0	8.5	MAY					
NOV						04...	1630	1140	--	15.5	9.0
15...	1520	267	87	9.5	9.5	13...	1220	593	--	28.0	9.5
JAN , 1977						JUN					
03...	1545	240	75	1.0	3.0	10...	1150	945	71	15.5	13.5
FEB						JUL					
15...	1520	103	101	12.0	6.5	21...	1040	891	72	28.0	17.0
MAR						SEP					
22...	1030	88	100	9.5	5.5	07...	1020	657	--	21.0	17.0

PAYETTE RIVER BASIN

13234300 - FIVEMILE CREEK NEAR LOWMAN, IDAHO (LAT 44 06 20 LONG 115 27 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
APR , 1977						SEP , 1977					
04...	1130	4.8	74	15.0	4.5	27...	0940	6.6	73	3.5	5.0

13234500 - CLEAR CREEK AT LOWMAN IDAHO (LAT 44 04 55 LONG 115 36 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1055	32	67	12.5	6.5

PAYETTE RIVER BASIN--Continued

13235100 - ROCK CREEK AT LOWMAN, IDAHO (LAT 44 04 50 LONG 115 37 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1130	5.2	116	11.5	5.5

13236500 - DEADWOOD RIVER BL DEADWOOD RE NR LOWMAN ID (LAT 44 17 30 LONG 115 38 33)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
DEC , 1976						JUN , 1977					
07...	1435	2.8	59	3.0	3.0	23...	1740	398	39	26.0	7.0
MAY , 1977						SEP					
18...	1600	247	--	7.5	4.0	17...	1300	343	56	26.0	18.5

13239300 - DEEP CREEK NEAR MCCALL, IDAHO (LAT 45 06 00 LONG 116 02 18)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
29...	1125	--	13	5.5	5.5

13240000 - LAKE FK PAYETTE RIVER AB JUMBO C NR MCCALL ID (LAT 44 54 50 LONG 115 59 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976						MAY , 1977					
20...	0850	18	39	6.0	1.5	11...	0810	176	20	3.0	4.0
DEC						JUN					
07...	1149	10	45	9.0	5.0	22...	0953	74	19	14.5	13.5
JAN , 1977						AUG					
11...	1032	12	46	-5.0	.0	03...	0900	13	40	19.0	16.0
MAR						SEP					
31...	1105	11	--	-1.5	.0	14...	0915	12	39	8.5	11.0

13245400 - TRIPOD CREEK AT SMITHS FERRY, IDAHO (LAT 44 17 55 LONG 116 05 17)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
MAR , 1977					
07...	1445	1.3	74	9.0	1.0

13246000 - N FK PAYETTE RIVER NR BANKS ID (LAT 44 06 50 LONG 116 06 25)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976						MAY , 1977					
05...	1250	1620	--	14.0	13.5	04...	1030	1080	42	9.5	8.5
NOV						JUN					
19...	1000	351	61	3.5	3.5	06...	1305	203	52	30.5	22.0
JAN , 1977						07...	1200	346	47	24.0	22.0
04...	1230	782	42	4.0	1.0	JUL					
FEB						20...	1650	1360	40	33.5	22.5
19...	1230	221	56	11.0	5.5	SEP					
APR						07...	1255	957	42	25.5	18.5
05...	1010	398	59	12.0	8.0						

13247500 - PAYETTE RIVER NR HORSESHOE BEND, IDA (LAT 43 56 33 LONG 116 11 45)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976						MAY , 1977					
05...	1650	2280	--	19.0	14.0	04...	1525	2080	58	13.5	10.0
NOV						JUL					
19...	1235	950	94	9.5	4.0	21...	1255	2182	53	33.5	21.0
JAN , 1977						SEP					
04...	1320	1330	40	4.5	.0	07...	1620	1616	62	35.0	19.5
FEB											
19...	1620	755	91	9.0	5.0						

13248900 - COTTONWOOD CREEK NEAR HORSESHOE BEND, IDAHO (LAT 43 53 35 LONG 116 12 09)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
APR , 1977					
05...	1650	.32	207	17.5	17.0

13248970 - JOHNSON CREEK NEAR MONTOUR, IDAHO (LAT 43 55 03 LONG 116 21 13)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
APR , 1977					
05...	1555	.12	242	25.0	18.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
PAYETTE RIVER BASIN--Continued											
13249500 - PAYETTE RIVER NEAR EMMETT, IDAHO (LAT 43 55 50 LONG 116 26 30)											
OCT , 1976 04...	1500	1940	75	19.0	11.5	MAY , 1977 03...	1445	825	67	14.0	13.0
NOV 19...	1615	1230	90	10.0	5.5	JUN 08...	1440	1380	46	30.5	19.5
JAN , 1977 05...	1020	1500	28	-.5	.5	JUL 22...	1305	756	46	35.5	23.5
FEB 14...	1435	864	76	9.0	2.0	SEP 08...	1000	532	71	19.5	17.0
APR 01...	1420	836	101	9.0	7.5	22...	1330	523	80	12.5	16.5
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)											
OCT , 1976 04...	1215	5.2	109	14.0	10.5	MAY , 1977 03...	1020	5.2	178	14.0	12.0
NOV 19...	1255	6.5	170	11.0	8.5	JUN 09...	1130	4.8	175	19.5	17.5
JAN , 1977 05...	1430	6.9	100	-2.0	.5	JUL 21...	1445	3.6	172	32.0	22.5
FEB 14...	1647	7.2	158	9.0	6.0	SEP 08...	1510	4.6	172	23.5	17.0
APR 01...	1000	7.2	158	17.0	6.0						
WEISER RIVER BASIN											
13251500 - WEISER RIVER AT TAMARACK IDAHO (LAT 44 56 49 LONG 116 22 55)											
JUN , 1977 10...	0800	11	96	11.0	17.0						
13253500 - WEISER RIVER AT STARKEY, IDAHO (LAT 44 51 00 LONG 116 26 40)											
JUN , 1977 09...	1545	44	114	25.0	20.0	SEP , 1977 30...	0900	42	117	5.0	8.0
13255500 - HORNET CREEK NEAR COUNCIL, IDAHO (LAT 44 45 00 LONG 116 29 00)											
JUN , 1977 09...	1200	.79	172	22.0	19.0						
13256800 - M FK WEISER RIVER AB FALL CREEK NR MESA ID (LAT 44 38 43 LONG 116 22 23.01)											
JUN , 1977 09...	1030	36	83	18.5	14.5						
13257600 - JOHNSON CREEK NEAR GOODRICH, IDAHO (LAT 44 40 30 LONG 116 32 06.01)											
JUN , 1977 08...	1630	8.0	85	26.0	23.0						
13257800 - GOODRICH CREEK NEAR GOODRICH, IDAHO (LAT 44 39 58 LONG 116 35 52.01)											
JUN , 1977 08...	1500	12	56	25.0	17.0						
13259500 - RUSH CREEK AT CAMBRIDGE ID (LAT 44 34 30 LONG 116 40 00)											
JUN , 1977 08...	1245	14	71	23.0	18.0						
13260000 - PINE CREEK NEAR CAMBRIDGE, IDAHO (LAT 44 35 23 LONG 116 44 12)											
JUN , 1977 08...	1050	12	117	21.0	16.5	SEP , 1977 30...	1545	3.3	143	11.5	12.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
WEISER RIVER BASIN--Continued											
13261000 - LITTLE WEISER RIVER NEAR INDIAN VALLEY, IDAHO (LAT 44 29 35 LONG 116 23 45)											
JUN , 1977						SEP , 1977					
09...	0930	33	83	14.5	14.0	30...	1345	24	88	12.5	9.5
13261670 - DIXIE CREEK NEAR CAMBRIDGE, IDAHO (LAT 44 29 56 LONG 116 36 38)											
APR , 1977											
07...	1540	.01	325	29.0	15.5						
BROWNLEE CREEK BASIN											
13289600 - E BROWNLEE CREEK AT BROWNLEE RANGER STATION ID (LAT 44 44 08 LONG 116 50 15)											
SEP , 1977											
29...	1737	2.4	220	10.0	9.0						
WILDHORSE RIVER BASIN											
13289800 - BEAR CREEK NEAR BEAR IDAHO (LAT 44 59 40 LONG 116 41 00)											
SEP , 1977											
30...	1120	10	--	5.5	7.5						
PINE CREEK BASIN											
13290190 - PINE CREEK NEAR OXBOW OREGON (LAT 44 57 13 LONG 116 52 21)											
OCT , 1976						APR , 1977					
01...	1000	56	159	14.0	12.5	27...	1410	54	121	23.0	15.5
28...	1550	65	160	10.5	8.5	MAY					
DEC						25...	1500	133	142	21.0	16.5
01...	1510	60	97	8.5	1.5	JUN					
29...	1420	42	189	2.0	.0	29...	1030	24	184	23.0	20.0
JAN , 1977						JUL					
26...	1430	61	178	2.5	1.0	27...	1405	22	182	35.0	26.5
FEB						AUG					
24...	1500	70	164	8.0	6.5	24...	1630	13	216	20.5	19.0
MAR						SEP					
23...	1510	66	161	17.0	9.0	29...	1110	116	171	12.0	13.0
SALMON RIVER BASIN											
13292200 - SALMON RIVER AT HEAD NR OBSIDIAN ID (LAT 43 53 03 LONG 114 45 47)											
SEP , 1977											
28...	0845	4.7	186	2.5	4.5						
13292400 - BEAVER CREEK NEAR STANLEY, IDAHO (LAT 43 55 10 LONG 114 48 48)											
SEP , 1977											
28...	0920	.38	89	9.0	3.5						
13292500 - SALMON RIVER NEAR OBSIDIAN, IDAHO (LAT 43 57 57 LONG 114 48 01)											
SEP , 1977											
28...	1100	28	206	15.0	5.5						
13293000 - ALTURAS LAKE CREEK NR OBSIDIAN IDAHO (LAT 43 57 00 LONG 114 50 00)											
SEP , 1977											
28...	1010	9.6	62	7.5	7.0						
13293800 - SALMON R AB REDFISH LAKE CK NR STANLEY, ID (LAT 44 09 50 LONG 114 53 10)											
SEP , 1977											
28...	1220	204	178	15.0	9.0						
13293900 - REDFISH LAKE CREEK BL LAKE NR STANLEY ID (LAT 44 09 20 LONG 114 54 40)											
SEP , 1977											
28...	1255	31	30	16.5	13.0						

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

SALMON RIVER BASIN--Continued

13295000 - VALLEY CREEK AT STANLEY, IDAHO (LAT 44 13 21 LONG 114 55 49)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
28...	1340	82	76	15.0	8.0

13295500 - SALMON RIVER BL VALLEY CREEK AT STANLEY ID (LAT 44 14 00 LONG 114 55 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
28...	1425	327	102	15.0	9.0

13296000 - YANKEE FORK SALMON R NR CLAYTON IDAHO (LAT 44 17 15 LONG 114 43 11)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1120	50	74	16.0	6.5

13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
AUG , 1977					
03...	1205	323	133	28.0	16.0

13297000 - WARM SPRINGS CREEK AT ROBINSON BAR NR CLAYTON ID (LAT 44 14 50 LONG 114 40 11)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1325	39	141	16.0	7.0

13297100 - PEACH CREEK NEAR CLAYTON, IDAHO (LAT 44 15 50 LONG 114 38 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1430	2.0	229	16.5	8.5

13297300 - HOLMAN CREEK NEAR CLAYTON, IDAHO (LAT 44 14 52 LONG 114 31 43)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1977					
27...	1520	.32	170	16.0	8.0

13297330 - THOMPSON CREEK NEAR CLAYTON IDAHO (LAT 44 15 36 LONG 114 30 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1976					
08...	1505	4.5	193	16.5	6.0
DEC					
14...	1245	4.8	213	1.0	1.0
JAN , 1977					
30...	1500	3.1	222	4.0	1.0
MAR					
14...	1200	3.0	222	7.0	3.5
APR					
14...	1220	6.8	175	6.0	5.5
MAY , 1977					
22...	1250	7.2	161	15.0	7.0
JUN					
26...	1320	6.5	165	31.0	17.0
AUG					
03...	1520	2.7	203	24.0	17.0
SEP					
12...	1300	1.8	226	20.0	13.0

13297350 - BRUNO CREEK NEAR CLAYTON, IDAHO (LAT 44 17 56 LONG 114 28 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1976					
08...	1155	.41	310	6.0	5.0
DEC					
15...	1755	.31	352	-.5	3.0
JAN , 1977					
30...	1135	.29	329	-6.5	1.0
MAR					
14...	1100	.30	375	1.0	2.0
APR					
15...	0930	.39	375	6.0	4.0
MAY , 1977					
22...	1110	.43	304	13.5	6.5
AUG					
04...	0820	.08	406	12.0	7.5
SEP					
12...	1430	E.07	449	25.0	8.5
27...	1610	.11	286	16.5	8.0

SALMON RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
13297355 - SQUAW CREEK BL BRUNO CREEK NR CLAYTON ID (LAT 44 17 26 LONG 114 28 15)											
NOV , 1976						MAY , 1977					
08...	1100	9.9	173	8.5	4.5	22...	0900	14	154	5.0	4.0
DEC						JUN					
15...	1610	7.9	194	1.0	.0	26...	0925	13	157	14.5	13.0
JAN , 1977						AUG					
30...	0930	7.2	119	-12.5	.0	04...	0945	5.9	183	14.5	11.5
MAR						SEP					
14...	0915	8.9	204	-8.5	.0	12...	1555	4.3	239	20.5	15.5
APR											
14...	1435	15	169	8.0	6.0						
13297500 - BIG BOULDER CREEK NEAR CLAYTON, IDAHO (LAT 44 05 58 LONG 114 26 24)											
JUL , 1977						SEP , 1977					
13...	1600	19	92	25.0	13.5	27...	1430	10	107	9.5	7.0
13298400 - BAYHORSE CREEK NEAR CHALLIS IDAHO (LAT 44 22 53 LONG 114 15 52.01)											
SEP , 1977											
28...	0930	3.5	252	8.5	7.5						
13298500 - SALMON RIVER NEAR CHALLIS, IDAHO (LAT 44 22 43 LONG 114 15 18)											
APR , 1977						SEP , 1977					
14...	1025	825	138	10.0	5.5	28...	1135	616	158	13.0	8.5
AUG											
04...	1415	549	138	28.0	16.5						
13301500 - BIG CREEK AB DIV NR PATTERSON ID (LAT 44 26 38 LONG 113 36 25)											
SEP , 1977											
28...	1500	26	83	12.0	7.5						
13301700 - MORSE CREEK AB DIV NR MAY ID (LAT 44 36 55 LONG 113 48 25)											
MAR , 1977						SEP , 1977					
12...	1730	4.6	58	5.5	2.0	28...	1330	7.4	44	16.0	7.5
JUN											
23...	1800	16	37	21.0	9.0						
13302180 - LAKE CREEK AB WILLIAMS LAKE NR SALMON IDAHO (LAT 45 01 00 LONG 113 59 38)											
SEP , 1977											
30...	1500	4.1	126	8.0	8.0						
13303000 - TEXAS CREEK NEAR LEADORE, IDAHO (LAT 44 35 10 LONG 113 19 45)											
SEP , 1977											
29...	1415	21	309	16.0	10.5						
13304875 - HAYDEN CREEK BL BEAR VALLEY CREEK NR LEMHI ID (LAT 44 46 43 LONG 113 42 21)											
SEP , 1977											
29...	1530	54	392	10.0	11.0						
13305700 - DAHLONEGA CREEK AT GIBBONSVILLE IDAHO (LAT 45 32 50 LONG 113 55 40)											
SEP , 1977											
29...	1015	15	137	8.0	9.0						
13305800 - HUGHES CREEK NEAR NORTH FORK, IDAHO (LAT 45 31 12 LONG 114 01 59)											
MAR , 1977						SEP , 1977					
08...	1900	3.2	71	6.5	2.0	29...	0920	8.7	62	6.0	8.0
JUN											
24...	1830	16	47	30.0	12.5						

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

SALMON RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
13306000 - N FK SALMON RIVER AT NORTH FORK ID (LAT 45 24 26 LONG 113 59 37)											
SEP , 1977											
29...	1130	52	100	10.0	11.0						
13306320 - PANTHER CREEK AT COPPER CREEK R S NR COBALT ID (LAT 45 04 07 LONG 114 16 11)											
SEP , 1977											
30...	1250	36	98	11.5	7.0						
13306330 - BLACKBIRD CREEK BL MEADOW CREEK NR BLACKBIRD ID (LAT 45 06 59 LONG 114 20 30)											
SEP , 1977											
30...	1200	.70	471	6.0	5.0						
13306440 - PANTHER CR BL BIG DEER CR NR BLACKBIRD ID (LAT 45 10 38 LONG 114 18 53)											
SEP , 1977											
30...	1050	79	80	8.0	7.5						
13307050 - OWL CREEK NEAR SHOUP IDAHO (LAT 45 19 07 LONG 114 26 52)											
SEP , 1977											
13...	1615	9.7	133	28.0	12.5						
13308500 - M FK SALMON RIVER NR CAPEHORN ID (LAT 44 25 00 LONG 115 11 00)											
SEP , 1977						SEP , 1977					
28...	1605	75	75	14.5	9.5	30...	1500	4.1	126	8.0	8.0
13309000 - BEAR VALLEY CREEK NR CAPE HORN IDAHO (LAT 44 26 00 LONG 115 17 00)											
SEP , 1977											
28...	1720	102	53	15.0	11.5						
13310500 - S FK SALMON RIVER NR KNOX ID (LAT 44 39 15 LONG 115 42 05)											
SEP , 1977											
27...	1530	39	60	18.0	9.0						
13311500 - E FK OF S FK SALMON RIVER NR STIBNITE ID (LAT 44 56 11 LONG 115 20 10)											
SEP , 1977											
28...	1145	24	128	12.0	7.5						
13312300 - TRANSMOUNTAIN DIV NR KNOW ID (LAT 44 32 30 LONG 115 34 00)											
SEP , 1977											
27...	1725	1.6	45	13.5	8.0						
13312500 - JOHNSON CREEK NR LANDMARK RANGER STATION IDAHO (LAT 44 40 56 LONG 115 32 24)											
SEP , 1977											
27...	1855	20	47	11.0	9.5						
13313500 - SECESH RIVER NEAR BURGDORF, IDAHO (LAT 45 13 59 LONG 115 48 36)											
SEP , 1977											
29...	1005	156	30	4.5	6.5						
13314000 - S FK SALMON RIVER NR WARREN ID (LAT 45 10 30 LONG 115 34 45)											
SEP , 1977											
28...	1800	805	54	16.0	11.0						

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SALMON RIVER BASIN--Continued											
13314500 - WARREN CREEK NEAR WARREN, IDAHO (LAT 45 17 00 LONG 115 42 00)											
SEP , 1977 29...	0830	23	34	5.0	6.5						
13315500 - MUD CREEK NR TAMARACK IDAHO (LAT 44 59 48 LONG 116 20 54)											
JUN , 1977 10...	1045	8.4	111	16.0	15.0	SEP , 1977 29...	1425	7.8	92	11.5	10.5
13316000 - BOULDER CREEK NEAR TAMARACK, IDAHO (LAT 45 05 04 LONG 116 26 54)											
JUN , 1977 10...	0940	8.4	48	10.5	7.0	SEP , 1977 29...	1650	2.5	53	6.5	7.5
CLEARWATER RIVER BASIN											
13336450 - BACKCLIFF CK AT O'HARA G.S., IDAHO (LAT 46 05 05 LONG 115 29 38)											
MAY , 1977 19...	1145	26	19	13.0	6.5						
13336500 - SELWAY RIVER NR LOWELL ID (LAT 46 05 12 LONG 115 30 46)											
NOV , 1976 09...	0825	951	32	--	7.0	MAY , 1977 19...	1145	6240	15	13.0	6.5
JAN , 1977 06...	1225	432	36	-.5	.0	JUN 28...	0900	1870	25	16.5	16.0
FEB 17...	0900	793	23	2.0	.0	AUG 16...	0845	519	35	20.0	20.5
MAR 31...	1425	1150	37	7.0	5.5						
13337000 - LOCHSA RIVER NR LOWELL ID (LAT 46 09 02 LONG 115 35 11)											
NOV , 1976 09...	1330	564	42	12.0	7.0	MAY , 1977 19...	1150	5010	12	9.5	6.5
JAN , 1977 06...	1600	381	39	.0	.0	JUN 28...	1315	1310	27	27.0	18.5
FEB 17...	1200	607	36	11.0	.0	SEP 21...	0745	670	38	11.5	12.0
APR 01...	0915	833	36	5.0	4.5						
13337540 - LEGGETT CREEK NEAR GOLDEN, IDAHO (LAT 45 49 36 LONG 115 37 35)											
MAY , 1977 18...	1230	23	17	9.0	4.5						
13337700 - PEASLEY CREEK NEAR GOLDEN, IDAHO (LAT 45 49 05 LONG 115 49 01)											
MAY , 1977 18...	1130	25	37	9.5	4.5						
13338500 - S FK CLEARWATER RIVER AT STITES, IDAHO (LAT 46 05 12 LONG 115 58 32)											
NOV , 1976 09...	1500	280	75	11.0	9.0	MAY , 1977 18...	1415	2190	76	10.0	8.5
JAN , 1977 05...	1440	161	67	.0	7.5	JUN 28...	1550	532	39	23.0	22.0
FEB 16...	1440	245	72	10.0	2.0	AUG 15...	0745	146	55	20.0	19.5
MAR 31...	0915	344	88	4.0	3.5	SEP 20...	1500	252	61	18.0	15.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

CLEARWATER RIVER BASIN --Continued

13340000 - CLEARWATER RIVER AT OROFINO, IDAHO (LAT 46 28 43 LONG 116 15 23)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1976 10...	1420	2060	76	10.5	8.5	MAY , 1977 16...	1440	14300	57	12.5	12.0
JAN , 1977 05...	1015	1000	55	-.5	7.5	JUN 30...	0930	3810	43	17.0	17.0
FEB 16...	1045	2150	61	1.0	8.0	AUG 13...	1520	--	43	27.5	26.5
MAR 30...	1215	3240	22	11.0	5.0	SEP 19...	1205	1700	120	14.0	14.5

13341000 - N FK CLEARWATER RIVER AT AHSAHKA ID (LAT 46 03 16 LONG 116 19 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1976 10...	1420	2060	76	10.5	8.5	MAY , 1977 16...	1620	960	50	12.5	16.0
JAN , 1977 05...	1000	10500	32	.0	7.5	JUN 29...	1400	7980	31	30.0	15.0
MAR 30...	0930	1090	22	7.5	6.5	AUG 12...	1200	991	37	30.0	13.0

PALOUSE RIVER BASIN

13345000 - PALOUSE RIVER NR POTLATCH ID (LAT 45 54 55 LONG 116 57 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1976 19...	1520	12	76	19.5	6.5	APR , 1977 12...	1520	168	46	20.0	9.5
NOV 19...	0945	29	66	3.0	4.0	MAY 10...	1345	47	72	14.5	6.5
DEC 14...	1315	23	72	15.5	.0	JUN 07...	1430	44	59	27.5	24.5
JAN , 1977 11...	1435	8.9	79	5.5	.0	AUG 09...	1420	2.6	72	33.0	24.0
FEB 15...	1500	81	64	14.0	1.5	SEP 20...	1405	7.7	63	16.0	23.5
MAR 15...	1200	51	67	4.0	1.5						

ADA COUNTY

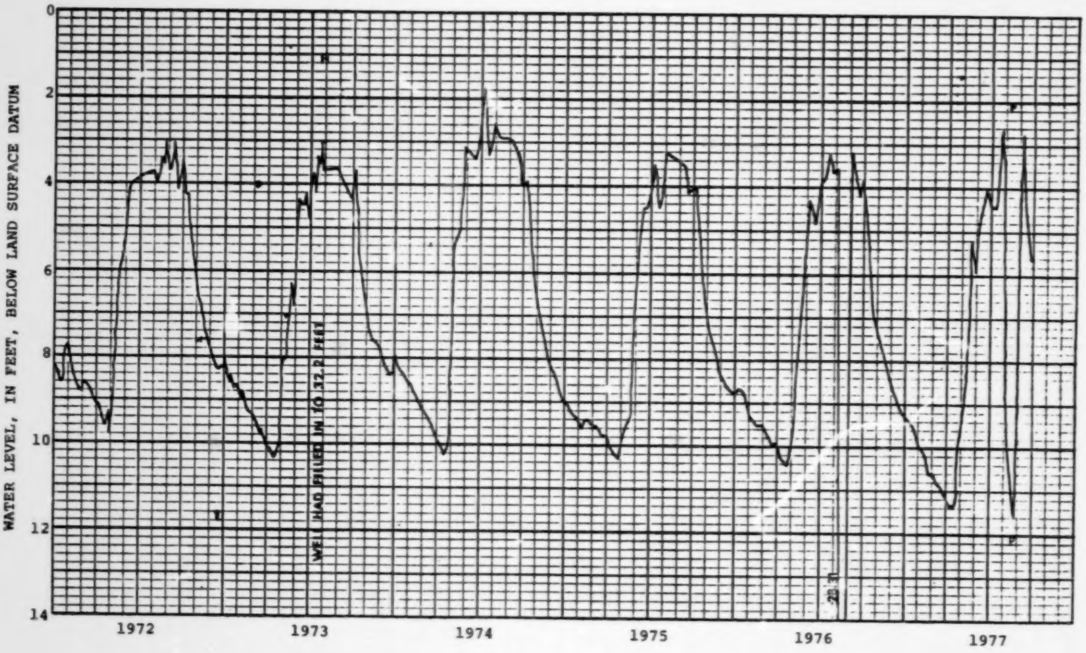
433852116244801. Local number, 04N 01W 35AAA1. A. A. Waite.

Dug unused water-table in younger terrace gravel, diam 24 in (61 cm), depth 44 ft (13 m), casing information not available. LSD 2,570.60 ft (783.519 m) above mean sea level datum of 1929, supplementary adjustment of 1961. Water level influenced by local irrigation. July 24, 1973, well had filled in to a depth of 32.2 ft (9.8 m). Measurements made Oct. 13, 1933, through Mar. 1, 1947, and Nov. 4, 1947, through Mar. 11, 1951, made by Nampa-Meridian Irrigation District. Recorder installed May 15, 1953. Recorder changed to digital Sept. 16, 1975. Measuring point No. 1 top of casing north side, 1.30 ft (0.396 m) above land-surface datum (since May 22, 1953).

Highest water level	1.73 ft (0.527 m) below lsd, July 10, 1974.
Lowest water level	12.2 ft (3.719 m) below lsd, Mar. 15, 1935.
Records available	1933-77.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.87	7.19	8.47	9.33	9.91	10.74	11.26	9.05	5.71	3.79	3.43	3.33
10	4.79	7.44	8.65	9.38	10.06	10.86	11.36	8.32	4.73	4.29	10.00	2.71
15	5.57	7.73	8.79	9.44	10.11	10.87	11.36	7.62	4.49	3.59	4.19	3.45
20	6.17	7.92	8.93	9.52	10.15	10.98	10.89	7.38	3.99	3.62	11.61	4.63
25	6.58	8.09	9.03	9.66	10.61	11.05	10.09	5.10	4.22	2.66	3.57	5.02
EOM	6.95	8.33	9.19	9.78	10.57	11.14	9.61	5.94	4.21	3.66	10.62	5.66



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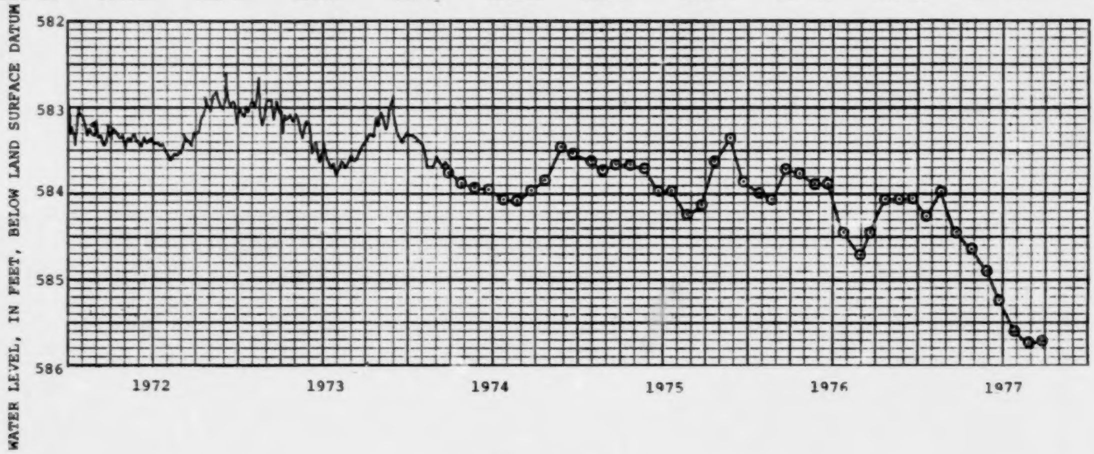
432701112471101. Local number, 02N 31E 35DCC1. U.S. Geological Survey.

Drilled observation water-table well in Snake River Group, diam 6 to 5 in (15 to 13 cm), depth 636 ft (194 m), 6-in (15-cm) casing 0-433 ft (0-132 m), 5-in (13-cm) casing 423-636 ft (129-194 m), perforated 600-630 ft (183-192 m). Land-surface datum 5,023.68 ft (1,531.218 m) above mean sea level datum of 1929, based on elevation of 1947 (preliminary). Recorder installed Jan. 3, 1950. Recorder removed July 25, 1956. Recorder installed Mar. 11, 1965. Recorder removed Mar. 25, 1974. Measuring point No. 1 top of casing, 1.49 ft (0.454 m) above land-surface datum (since Dec. 25, 1949).

Highest water level	582.1 ft (177.424 m) below lsd, Nov. 12, 1951.
Lowest water level	586.65 ft (178.811 m) below lsd, May 25, 1964.
Records available	1949-77.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	584.09	DEC 22	584.10	FEB 21	583.96	APR 20	584.63	JUN 21	585.24	AUG 23	585.73
NOV 22	584.10	JAN 20	584.27	MAR 22	584.44	MAY 25	584.90	JUL 23	585.61	SEP 26	585.71



GOODING COUNTY

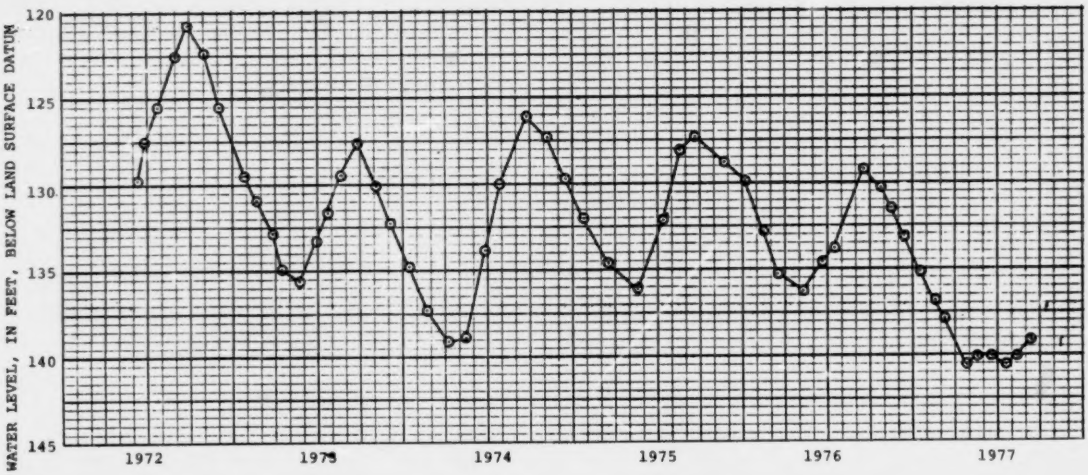
425635114382301. Local number, 05S 15E 35DBC2. Tom H. Gooding.

Drilled domestic water-table well in Snake River Group, diam 5 in (13 cm), depth 165.1 ft (50.3 m), cased to 126 ft (38.4 m). Land-surface datum 3,627.31 ft (1,105.604 m) above mean sea level datum of 1929, supplementary adjustment of 1961. Measuring point No. 1 top of 5-in (13-dm) casing east side, 1.29 ft (0.393 m) above land-surface datum (since June 6, 1972).

Highest water level	120.84 ft (36.832 m) below lsd, Sep. 22, 1972.
Lowest water level	140.51 ft (42.827 m) below lsd, July 12, 1977.
Records available	1972-77.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	130.39	DEC 4	133.09	MAR 7	137.97	MAY 16	140.18	JUL 12	140.51	SEP 13	139.15
NOV 15	131.50	JAN 17	135.15	APR 22	140.51	JUN 22	140.16	AUG 17	140.01		



JEROME COUNTY

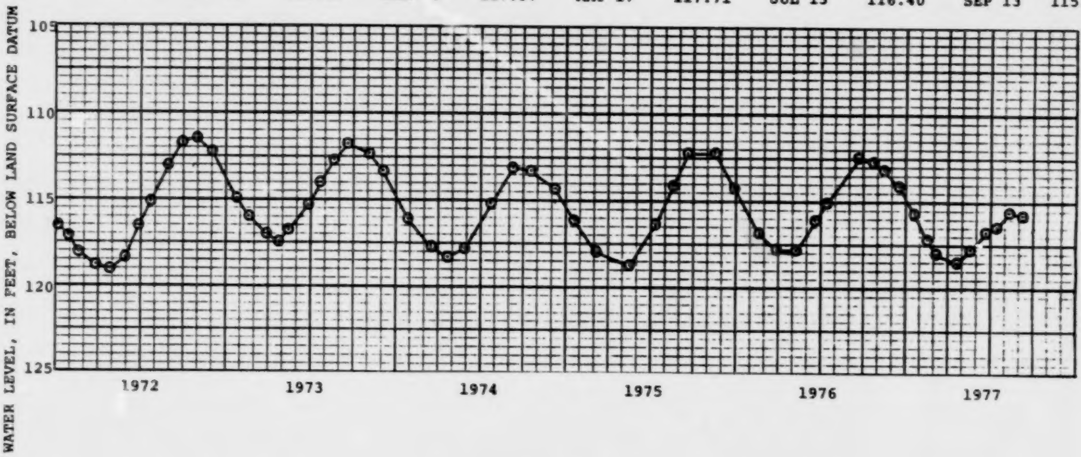
423659114111601. Local number, 09S 19E 25BBC1. U.S. Bureau of Reclamation.

Drilled observation water-table well in Snake River Group, diam 16 in (41 cm), depth 207.6 ft (63.3 m), cased to 134 ft (40.8 m), perforated 114-134 ft (34.7-40.8 m). Land-surface datum 3,932.37 ft (1,198.586 m) above mean sea level datum of 1929 (preliminary). Recorder installed Apr. 12, 1960. Recorder removed July 21, 1960. Measuring point No. 1 top of 16-in (41-cm) casing south side, 2.00 ft (0.610 m) above land-surface datum (since May 27, 1957).

Highest water level	101.06 ft (30.803 m) below lsd, Oct. 1, 1957.
Lowest water level	123.70 ft (37.704 m) below lsd, Apr. 20, 1964.
Records available	1957-77.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	112.67	DEC 14	114.05	FEB 17	117.21	APR 22	118.44	JUN 22	116.70	AUG 17	115.50
NOV 16	113.11	JAN 18	115.68	MAR 8	117.97	MAY 17	117.71	JUL 13	116.40	SEP 13	115.66



KOOTENAI COUNTY

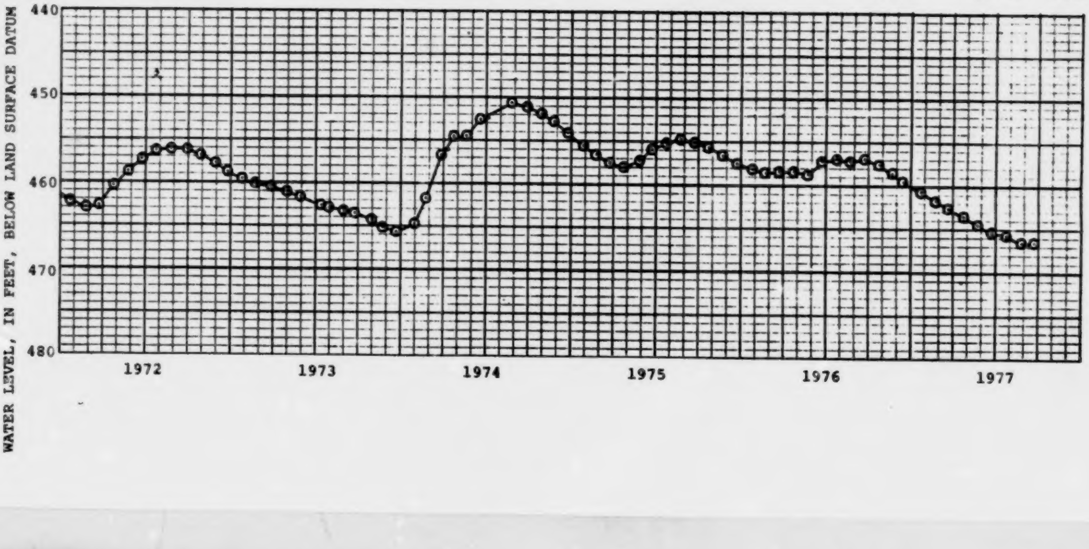
475558116464701. Local number, 53N 04W 24BBA1. Pack River Co.

Dug stock and domestic water-table well in fluvioglacial gravel of Quaternary age, diam 39 in (99 cm), depth 480.0 ft (146.3 m), cribbed with wood to 480 ft (146.3 m). Land-surface datum 2,486.53 ft (757.894 m) above mean sea level datum of 1929 (unadjusted). Apr. 26, 1965, well was deepened and recased to a depth of 485.2 ft (147.9 m), 25-in (64-cm) casing 9-25 ft (2.7-7.6 m), 25-in (64-cm) wood cribbing 25-303 ft (7.6-92.4 m), 20-in (51-cm) casing 258-488 ft (78.6-148.7 m), slotted perforations 449-488 ft (136.8-148.7 m). Measurements prior to 1938 by Washington Water Power Company. Measurements from January 1938 to July 1942 by U.S. Geological Survey and Washington Water Power Company. Measuring point No. 15 top of ½-in (1.3-cm) pipe tee south side of pump, 4.50 ft (1.372 m) above land-surface datum (since July 15, 1968).

Highest water level	447.38 ft (136.361 m) below lsd, Aug. 13, 20, 27, 1956.
Lowest water level	478.14 ft (145.737 m) below lsd, Jan. 15, 1932.
Records available	1929-77.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	457.40	DEC 21	459.60	FEB 24	461.82	APR 21	463.48	JUN 23	465.31	AUG 24	466.45
NOV 23	458.57	JAN 21	460.72	MAR 22	462.62	MAY 23	464.53	JUL 23	465.79	SEP 22	466.49



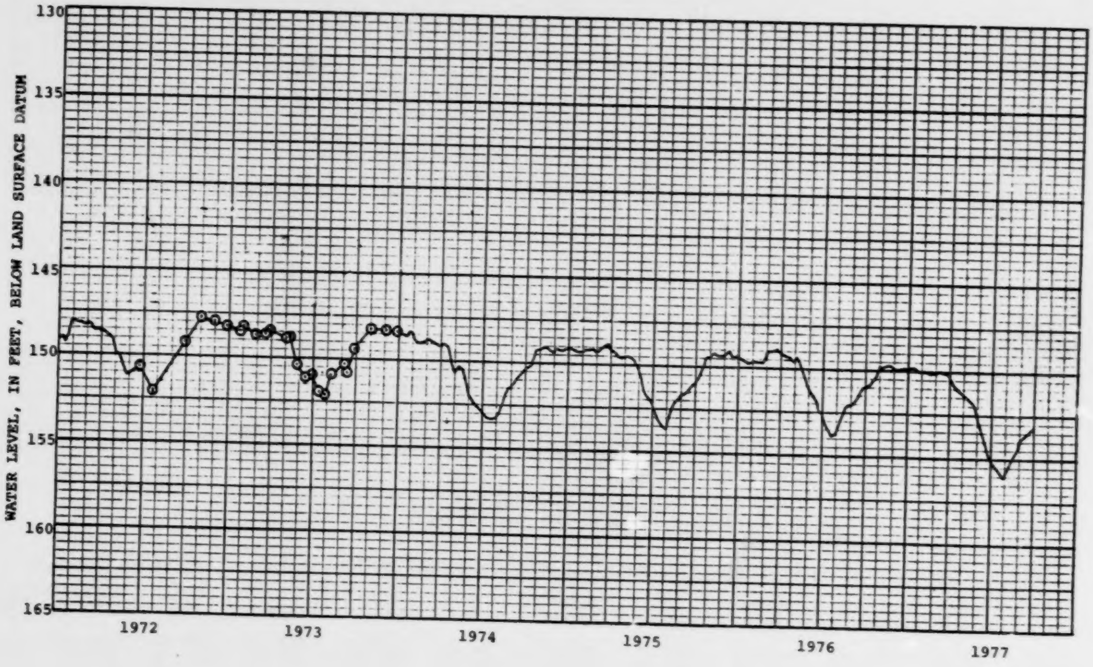
424053113412801. Local number, 08S 24E 31DAC1. U.S. Bureau of Reclamation.

Drilled observation water-table well in Snake River Group, diam 8 to 6 in (20 to 15 cm), reported depth 194 ft 59.1 m), 8-in (20-cm) casing 0-85 ft (0-25.9 m), 6-in (15-cm) casing 85-188 ft (25.9-57.3 m), perforated 158-188 ft (48.2-57.3 m). Land-surface datum 4,226.54 ft (1,288.249 m) above mean sea level datum of 1929, Pacific Northwest supplementary adjustment of 1947. Measurements prior to July 18, 1972, made by U.S. Bureau of Reclamation. Periodic measurements after and including July 18, 1972, made by U.S. Geological Survey. Sept. 20, 1950, continuous recorder installed, maintained and its record furnished by U.S. Bureau of Reclamation. Measuring point No. 1 top of casing, 1.80 ft (0.549 m) above land-surface datum (since Sept. 6, 1950).

Highest water level 140.5 ft (42.824 m) below lsd, Oct. 18, 24, Nov. 5, 1953.
Lowest water level 156.88 ft (47.817 m) below lsd, July 25, 1964.
Records available 1950-77.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	150.86	149.73	-	-	-	-	150.43	-	-	155.40	154.60	153.74
10	150.82	149.75	149.91	-	-	150.25	-	-	153.60	155.72	154.60	153.80
15	150.89	149.80	-	-	-	150.01	151.04	152.90	154.10	-	154.44	153.70
20	150.33	149.61	-	-	-	150.37	-	152.60	154.19	-	154.48	153.45
25	149.94	149.74	-	-	-	150.14	-	151.95	154.51	-	154.50	-
EOM	149.72	-	-	-	-	150.13	-	-	154.99	155.42	153.94	-



WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SAMP-LING DEPTH (FT)
ADA COUNTY									
433736116190501	43 37 36	116 19 05	01	03N 01E 03ADC1	001	77-07-29	1030	--	--
433417116172701	43 34 17	116 17 27	01	03N 01E 25BCB1	001	77-08-01	1400	--	--
433407116233801	43 34 07	116 23 38	01	03N 01W 25ADD1	001	77-08-25	1000	--	--
433648116153901	43 36 48	116 15 39	01	03N 02E 07ACC1	001	77-08-23	1530	--	--
433558116111201	43 35 58	116 11 12	01	03N 02E 14BDB1	001	77-07-29	1000	--	--
433437116113501	43 34 37	116 11 35	01	03N 02E 22DDD1	001	77-07-29	1000	--	--
433328116094201	43 33 28	116 09 42	01	03N 02E 36ABC1	001	77-07-29	1000	--	--
433830116193401	43 38 30	116 19 34	01	04N 01E 34BDC1	001	77-08-25	1205	--	--
433804116252701	43 38 04	116 25 27	01	04N 01W 35CDD1	001	77-08-25	1115	--	--
BINGHAM COUNTY									
433509112384801	43 35 09	112 38 48	01	ARBOR TEST	011	77-09-14	0915	--	--
433223112470201	43 32 23	112 47 02	01	AREA II	011	77-09-14	1230	--	--
432620112561301	43 26 20	112 56 13	01	CERRO GRANDE	011	77-09-20	0815	--	--
433544112391801	43 35 44	112 39 18	01	EBR I #1	011	77-09-14	1005	--	--
433544112392501	43 35 44	112 39 25	01	EBR I #2	011	77-09-14	0952	--	--
432701112471101	43 27 01	112 47 11	01	USGS 1	011	77-09-14	1430	--	--
433445112395001	43 34 45	112 39 50	01	USGS 100	011	77-09-14	0850	--	--
433255112384001	43 32 55	112 38 40	01	USGS 101	011	77-09-14	0750	--	--
432019112565101	43 20 19	112 56 51	01	USGS 14	011	77-09-20	1125	--	--
432638112484101	43 26 38	112 48 41	01	01N 31E 03CAC1 ATOMIC C	011	77-09-14	1445	--	--
430952112323801	43 09 52	112 32 38	01	03S 33E 13BDA1	011	77-08-17	1545	--	--
BLAINE COUNTY									
432020114251201	43 20 20	114 25 12	01	01S 17E 15ACA1	013	77-08-09	0850	--	--
BOISE COUNTY									
435250115542901	43 52 50	115 54 29	01	06N 05E 06DCC1	015	77-09-28	1400	--	--
434926115501401	43 49 26	115 50 14	01	06N 05E 26CCD1	015	77-09-22	1430	--	--
435628115565101	43 56 28	115 56 51	01	07N 04E 14DBC1	015	77-09-28	1230	--	--
440652115580901	44 06 52	115 58 09	01	09N 04E 15BDD1	015	77-09-23	1045	--	--
440439115354101	44 04 39	115 35 41	01	09N 07E 35ABC1	015	77-09-23	1330	--	--
BONNER COUNTY									
480046116373601	48 00 46	116 37 36	01	54N 02W 19CBA1	017	77-07-28	1300	98.74	--
480004116390501	48 00 04	116 39 05	01	54N 03W 25BCB1	017	77-08-10	1445	149.90	--
475935116405001	47 59 35	116 40 50	01	54N 03W 27DDC1	017	77-08-10	0940	69.94	--
480135116531301	48 01 35	116 53 13	01	54N 04W 17CAD1	017	77-08-11	1130	166.53	--
485100116532101	48 51 00	116 53 21	01	54N 04W 19BCD1	017	77-07-19	1615	142.13	--
475844116521801	47 58 44	116 52 18	01	54N 04W 31DDD1	017	77-08-23	0835	515.00	--
480207117001401	48 02 07	117 00 14	01	54N 05W 18AAA1	017	77-08-23	0935	109.60	--
480012117002901	48 00 12	117 00 29	01	54N 05W 30ABD1	017	77-08-09	1510	124.55	--
475923116533701	47 59 23	116 53 37	01	54N 05W 36AAD1	017	77-08-08	1500	276.34	--
480559117010401	48 05 59	117 01 04	01	55N 05W 19CBD1	017	77-08-23	1035	130.04	--
480821117012301	48 08 21	117 01 23	01	55N 06W 01DDD1	017	77-08-11	1440	174.25	--
481047116562901	48 10 47	116 56 29	01	56N 05W 27AAB1	017	77-08-23	1525	202.57	--
480959117012001	48 09 59	117 01 20	01	56N 06W 36AAA1	017	77-08-23	1255	47.81	--
481656116552601	48 16 56	116 55 26	01	57N 05W 14DCC1	017	77-08-24	1140	114.90	--
483020116543701	48 30 20	116 54 37	01	60N 04W 31CBD1	017	77-08-25	1520	44.27	--
483232116552901	48 32 32	116 55 29	01	60N 05W 24ABC1	017	77-08-25	1340	--	--
483832116520301	48 38 32	116 52 03	01	61N 04W 16BCA1	017	77-08-25	1140	23.78	--
BONNEVILLE COUNTY									
432533112100701	43 25 33	112 10 07	01	01N 36E 12DCD1	019	77-08-18	1100	--	--
432606112000601	43 26 06	112 00 06	01	01N 38E 09BCB1	019	77-08-17	1000	--	--
431940111071501	43 19 40	111 07 15	01	01S 45E 13DAC1S	019	77-07-13	1200	--	--
432952112045301	43 29 52	112 04 53	01	02N 37E 14CCC1	019	77-08-16	1205	--	--
432856112060801	43 28 56	112 06 08	01	02N 37E 28AAA1	019	77-08-16	1350	--	--
433307112300001	43 33 07	112 30 00	01	03N 34E 32BBC1	019	77-09-14	0715	--	--
433405111180001	43 34 05	111 18 00	01	03N 44E 20CCC1S	019	77-07-13	1530	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (GPM)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
ADA COUNTY--Continued											
433736116190501	77-07-29	--	--	--	182	7.6	21.0	--	--	56	0
433417116172701	77-08-01	109	--	--	718	--	--	--	--	--	--
433407116233801	77-08-25	--	--	--	808	7.0	21.0	--	--	300	50
433648116153901	77-08-23	--	--	--	538	7.4	15.0	--	--	250	0
433558116111201	77-07-29	--	--	--	193	7.1	18.0	--	--	37	0
433437116113501	77-07-29	--	--	--	195	7.8	19.0	--	--	41	0
433328116094201	77-07-29	--	--	--	204	7.3	21.5	--	--	51	0
433830116193401	77-08-25	--	--	--	566	--	14.0	--	--	180	0
433604116252701	77-08-25	--	--	--	782	6.8	18.0	--	--	300	85
BINGHAM COUNTY--Continued											
433509112384801	77-09-14	--	--	--	--	--	--	--	--	120	0
433223112470201	77-09-14	--	--	--	--	--	--	--	--	130	14
432620112561301	77-09-20	--	--	--	--	--	--	--	--	140	25
433544112391801	77-09-14	--	--	--	--	--	--	--	--	130	0
433544112392501	77-09-14	--	--	--	--	--	--	--	--	130	0
432701112471101	77-09-14	--	--	--	--	--	--	--	--	120	3
433445112395001	77-09-14	--	--	--	--	--	--	--	--	160	37
433255112384001	77-09-14	--	--	--	--	--	--	--	--	82	0
432019112565101	77-09-20	--	--	--	--	--	--	--	--	89	22
432638112484101	77-09-14	--	--	--	--	--	--	--	--	120	5
430952112323801	77-08-17	--	--	--	1008	7.3	17.5	--	--	320	6
BLAINE COUNTY--Continued											
432020114251201	77-06-09	305	--	--	156	7.4	15.5	--	--	41	0
BOISE COUNTY--Continued											
435250115542901	77-09-28	--	--	--	136	7.0	11.5	--	--	52	0
434926115501401	77-09-22	--	--	--	212	7.2	11.0	--	--	75	0
435628115565101	77-09-28	72	--	--	117	7.2	12.0	--	--	40	0
440652115580901	77-09-23	--	--	--	186	7.8	12.5	--	--	16	0
440439115354101	77-09-23	--	--	--	193	7.7	14.0	--	--	70	0
BONNER COUNTY--Continued											
480046116373601	77-07-28	125	15	E10	175	7.0	8.5	<1	<1	92	2
480004116390501	77-08-10	375	20	E20	246	7.8	11.0	<1	<1	120	0
475935116405001	77-08-10	90	20	E20	185	7.0	13.0	<1	<1	83	0
480135116531301	77-08-11	195	>60	E10	245	7.7	9.5	<1	<1	140	4
485100116532101	77-07-19	200	>60	E20	246	7.9	11.0	<1	<1	120	0
475644116521801	77-08-23	538	10	>20	43	6.6	20.0	<1	<1	16	0
480207117001401	77-08-23	146	>60	>25	301	7.2	9.5	<1	<1	150	19
480012117002901	77-08-09	252	20	E5.0	343	7.6	9.0	<1	<1	190	5
475923116533701	77-08-08	325	20	E25	205	7.0	10.0	<1	<1	110	12
480559117010401	77-08-23	189	>60	>60	214	7.3	8.0	<1	<1	110	0
480821117012301	77-08-11	210	>60	6.0	341	7.8	12.0	<1	<1	180	0
481047116562901	77-08-23	231	10	20	312	7.4	12.0	<1	<1	150	0
480959117012001	77-08-23	67	10	25	249	7.4	16.5	<1	<1	130	0
481656116552601	77-08-24	175	15	E10	163	6.7	10.0	<1	<1	66	0
483020116543701	77-08-25	46	15	E10	41	6.2	7.0	<1	<1	14	0
483232116552901	77-08-25	70	>60	60	48	6.5	6.0	<1	<1	16	0
483832116520301	77-08-25	40	5	E15	58	6.7	7.0	<1	<1	26	0
BONNEVILLE COUNTY--Continued											
432533112100701	77-08-18	--	--	--	831	7.3	15.0	--	--	340	82
432806112000601	77-08-17	--	--	--	618	7.5	18.0	--	--	280	13
431940111071501	77-07-13	--	--	--	380	7.5	13.5	--	--	230	0
432452112045301	77-08-16	--	--	--	580	7.3	13.0	--	--	270	23
432856112060801	77-08-16	--	--	--	559	7.6	15.0	--	--	260	27
433307112300001	77-09-14	--	--	--	--	--	--	--	--	100	0
433405111180001	77-07-13	--	--	--	410	7.3	9.0	--	--	230	9

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	HY- DROXIDE ION (MG/L AS OH)	ALKA- LINITY, TOTAL (MG/L AS CACO3)
ADA COUNTY--Continued											
433736116190501	77-07-29	18	2.8	15	36	.9	2.0	99	0	--	81
433417116172701	77-08-01	--	--	--	--	--	--	--	--	--	--
433407116233801	77-08-25	89	20	58	29	1.4	2.7	310	0	--	250
433648116153901	77-08-23	62	24	23	16	.6	2.5	350	0	--	290
433558116111201	77-07-29	13	1.1	28	62	2.0	.8	86	0	--	71
433437116113501	77-07-29	16	.3	27	59	1.8	.4	95	0	--	78
433328116094201	77-07-29	19	.8	22	48	1.3	1.1	97	0	--	80
433830116193401	77-08-25	50	14	57	40	1.8	1.6	340	--	--	280
433804116252701	77-08-25	93	16	53	28	1.3	2.7	260	0	--	210
BINGHAM COUNTY--Continued											
433509112384801	77-09-14	30	9.7	14	21	.6	3.0	150	0	--	123
433223112470201	77-09-14	31	12	14	19	.6	3.3	140	0	--	116
432620112561301	77-09-20	30	14	11	16	.4	2.9	140	0	--	115
433544112391801	77-09-14	35	10	15	20	.6	3.1	160	0	--	131
433544112392501	77-09-14	35	10	15	20	.6	3.1	160	0	--	132
432701112471101	77-09-14	30	10	14	21	.6	3.0	140	1	--	117
433445112395001	77-09-14	41	13	17	19	.6	3.3	150	0	--	123
433255112384001	77-09-14	19	7.9	19	33	1.0	4.5	110	0	--	90
432019112565101	77-09-20	21	8.3	11	22	.6	2.0	81	0	--	67
432638112484101	77-09-14	30	11	14	20	.6	3.2	140	0	--	115
430952112323801	77-08-17	71	34	89	37	2.2	7.3	380	0	--	310
BLAINE COUNTY--Continued											
432020114251201	77-08-09	9.8	4.0	15	41	1.0	5.5	73	0	--	60
BOISE COUNTY--Continued											
435250115542901	77-09-28	19	1.0	6.0	20	.4	.9	72	0	--	59
434926115501401	77-09-22	23	4.2	5.7	14	.3	1.2	110	0	--	90
435628115565101	77-09-28	11	3.1	10	35	.7	.7	63	0	--	52
440652115580901	77-09-23	5.5	.6	36	82	3.9	.7	100	0	--	82
440439115354101	77-09-23	24	2.5	12	27	.6	1.0	110	0	--	90
BONNER COUNTY--Continued											
480046116373601	77-07-28	29	4.7	3.1	7	.1	1.6	110	0	--	90
480004116390501	77-08-10	40	4.1	15	22	.6	.5	180	0	--	148
475935116405001	77-08-10	25	4.9	5.3	12	.3	2.0	110	0	--	90
480135116531301	77-08-11	31	14	3.8	6	.1	1.8	160	0	--	130
485100116532101	77-07-19	34	9.3	4.1	7	.2	1.7	160	0	--	131
475644116521801	77-08-23	5.0	.8	2.0	20	.2	.9	29	0	--	24
480207117001401	77-08-23	44	8.8	5.6	8	.2	2.0	160	0	--	131
480012117002901	77-08-09	51	14	5.1	6	.2	2.0	220	0	--	180
475923116533701	77-08-08	30	7.9	5.2	9	.2	1.8	120	0	--	98
480559117010401	77-08-23	32	7.4	5.6	10	.2	1.8	150	0	--	123
480821117012301	77-08-11	47	14	6.1	7	.2	2.2	220	0	--	180
481047116562901	77-08-23	41	12	12	14	.4	2.0	190	0	--	156
480959117012001	77-08-23	34	11	3.1	5	.1	2.8	170	0	--	139
481656116552601	77-08-24	18	5.2	5.6	15	.3	1.4	93	0	--	76
483020116543701	77-08-25	4.4	.8	2.5	26	.3	.9	24	0	--	20
483232116552901	77-08-25	5.0	.9	3.0	27	.3	1.1	32	0	--	26
483832116520301	77-08-25	7.5	1.7	1.5	11	.1	.8	39	0	--	32
BONNEVILLE COUNTY--Continued											
432533112100701	77-08-18	87	29	42	21	1.0	4.9	310	0	--	250
432606112000601	77-08-17	74	24	21	14	.5	4.9	330	0	--	270
431940111071501	77-07-13	57	20	.9	1	.0	.4	280	0	--	230
432952112045301	77-08-16	73	21	19	13	.5	3.5	300	0	--	250
432856112060801	77-08-16	73	20	18	13	.5	3.6	290	0	--	240
433307112300001	77-09-14	26	8.4	16	26	.7	2.6	140	0	--	115
433405111180001	77-07-13	61	19	2.6	2	.1	.5	270	0	--	220

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	IODIDE, DIS-SOLVED (MG/L AS I)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
ADA COUNTY--Continued										
433736116190501	77-07-29	4.0	4.8	2.4	.4	--	--	46	140	.19
433417116172701	77-08-01	--	71	6.7	--	--	--	--	--	--
433407116233801	77-08-25	50	140	26	.3	--	--	32	535	.73
433648116153901	77-08-23	22	9.6	4.6	.8	--	--	54	357	.49
433558116111201	77-07-29	11	12	3.1	3.0	--	--	20	124	.17
433437116113501	77-07-29	2.4	15	4.4	.6	--	--	17	128	.17
433328116094201	77-07-29	7.8	14	5.9	.5	--	--	23	135	.18
433830116193401	77-08-25	--	22	4.5	.4	--	--	33	361	.49
433804116252701	77-08-25	66	150	40	.3	--	--	31	517	.70
BINGHAM COUNTY--Continued										
433509112384801	77-09-14	--	7.1	13	.7	--	--	--	--	--
433223112470201	77-09-14	--	15	16	.5	--	--	--	--	--
432620112561301	77-09-20	--	17	17	.3	--	--	--	--	--
433544112391801	77-09-14	--	8.8	17	.6	--	--	--	--	--
433544112392501	77-09-14	--	8.8	18	.6	--	--	--	--	--
432701112471101	77-09-14	--	8.7	14	.6	--	--	--	--	--
433445112395001	77-09-14	--	47	19	.6	--	--	--	--	--
433255112384001	77-09-14	--	8.1	21	.8	--	--	--	--	--
432019112565101	77-09-20	--	4.7	28	.9	--	--	--	--	--
432638112484101	77-09-14	--	12	14	.5	--	--	--	--	--
430952112323801	77-08-17	30	100	67	.8	--	--	30	607	.83
BLAINE COUNTY--Continued										
432020114251201	77-08-09	4.6	6.5	5.4	1.4	--	--	70	154	.21
BOISE COUNTY--Continued										
435250115542901	77-09-28	12	2.5	1.5	.1	--	--	21	89	.12
434926115501401	77-09-22	11	1.2	1.7	.3	--	--	21	120	.16
435628115565101	77-09-28	6.4	4.1	1.1	.1	--	--	51	114	.16
440652115580901	77-09-23	2.5	3.8	1.8	1.9	--	--	35	135	.18
440439115354101	77-09-23	3.5	2.5	2.5	1.6	--	--	27	128	.17
BONNER COUNTY--Continued										
480046116373601	77-07-28	18	7.2	.8	.1	--	--	24	126	.17
480004116390501	77-08-10	4.6	3.3	1.0	.1	--	--	19	173	.23
475935116405001	77-08-10	18	6.0	.8	.2	--	--	20	120	.16
480135116531301	77-08-11	5.1	8.9	.7	.1	--	--	13	153	.21
485100116532101	77-07-19	3.2	8.7	.6	.1	--	--	15	153	.21
475844116521801	77-08-23	12	2.3	.4	.0	--	--	16	42	.05
480207117001401	77-08-23	16	9.0	2.7	.2	--	--	18	178	.25
480012117002901	77-08-09	8.8	6.0	.8	.2	--	--	24	220	.30
475923116533701	77-08-08	19	15	.6	.2	--	--	24	145	.19
480559117010401	77-08-23	12	9.1	.8	.1	--	--	19	152	.19
480821117012301	77-08-11	5.6	11	.5	.1	--	--	12	201	.27
481047116562901	77-08-23	12	28	.9	.3	--	--	15	206	.27
480959117012001	77-08-23	11	11	.4	.1	--	--	9.7	156	.21
481656116552601	77-08-24	30	17	.7	.2	--	--	25	124	.16
483020116543701	77-08-25	24	2.1	.7	.0	--	--	22	47	.06
483232116552901	77-08-25	16	2.3	.6	.1	--	--	25	54	.07
483832116520301	77-08-25	12	3.1	.1	.1	--	--	13	47	.06
BONNEVILLE COUNTY--Continued										
432533112100701	77-08-18	25	72	49	.4	--	--	28	523	.71
432606112000601	77-08-17	17	38	15	.3	--	--	30	382	.52
431940111071501	77-07-13	14	2.2	1.2	.1	.0	.00	5.4	225	--
432952112045301	77-08-16	24	42	11	.4	--	--	25	354	.48
432856112060801	77-08-16	12	41	11	.3	--	--	20	338	.46
433307112300001	77-09-14	--	55	7.7	.9	--	--	--	--	--
433405111180001	77-07-13	22	18	1.2	.1	.0	.01	10	246	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
ADA COUNTY--Continued				
433736116190501	77-07-29	.01	.07	--
433417116172701	77-08-01	.44	--	--
433407116233801	77-08-25	3.1	.06	--
433648116153901	77-08-23	.84	.31	--
433558116111201	77-07-29	.03	.02	--
433437116113501	77-07-29	.03	.01	--
433328116094201	77-07-29	.28	.02	--
433830116193401	77-08-25	2.4	.07	--
433804116252701	77-08-25	.61	.05	--
BINGHAM COUNTY--Continued				
433509112384801	77-09-14	--	--	--
433223112470201	77-09-14	--	--	--
432620112561301	77-09-20	--	--	--
433544112391801	77-09-14	--	--	--
433544112392501	77-09-14	--	--	--
432701112471101	77-09-14	--	--	--
433445112395001	77-09-14	--	--	--
433255112384001	77-09-14	--	--	--
432019112565101	77-09-20	--	--	--
432638112484101	77-09-14	--	--	--
430952112323801	77-08-17	4.5	.09	--
BLAINE COUNTY--Continued				
432020114251201	77-08-09	--	.11	--
BOISE COUNTY--Continued				
435250115542901	77-09-28	.06	.02	--
434926115501401	77-09-22	.02	.68	--
435628115565101	77-09-28	.29	.03	--
440652115580901	77-09-23	.04	.05	--
440439115354101	77-09-23	.20	.04	--
BONNER COUNTY--Continued				
480046116373601	77-07-28	.30	.19	--
480004116390501	77-08-10	.21	.01	--
475935116405001	77-08-10	.39	.04	--
480135116531301	77-08-11	.16	.00	--
485100116532101	77-07-19	.18	.02	--
475844116521801	77-08-23	.12	.02	--
480207117001401	77-08-23	2.0	.03	--
480012117002901	77-08-09	2.0	.04	--
475923116533701	77-08-08	.11	.01	--
480559117010401	77-08-23	.47	.03	--
480821117012301	77-08-11	.01	.05	--
481047116562901	77-08-23	.21	.02	--
480959117012001	77-08-23	.01	.02	--
481656116552601	77-08-24	.01	.06	--
483020116543701	77-08-25	.41	.07	--
483232116552901	77-08-25	.08	.03	--
483832116520301	77-08-25	.05	.01	--
BONNEVILLE COUNTY--Continued				
432533112100701	77-08-18	13	.04	--
432606112000601	77-08-17	2.7	.03	--
431940111071501	77-07-13	--	.00	--
432952112045301	77-08-16	2.4	.05	--
432856112060801	77-08-16	1.9	.36	--
433307112300001	77-09-14	--	--	--
433405111180001	77-07-13	--	.02	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, HEXA-VALENT, DIS. (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	IRON (UG/L AS FE)
ADA COUNTY--Continued											
433736116190501	77-07-29	--	1	--	30	5	--	--	--	80	--
433417116172701	77-08-01	--	--	--	--	--	--	--	--	--	--
433407116233801	77-08-25	--	1	--	70	0	--	--	--	40	--
433648116153901	77-08-23	--	14	--	40	0	--	--	--	30	--
433558116111201	77-07-29	--	3	--	20	0	--	--	--	10	--
433437116113501	77-07-29	--	5	--	20	0	--	--	--	10	--
433328116094201	77-07-29	--	10	--	30	0	--	--	--	0	--
433830116193401	77-08-25	--	1	--	60	0	--	--	--	40	--
433804116252701	77-08-25	--	0	--	50	0	--	--	--	50	--
BINGHAM COUNTY--Continued											
433509112384801	77-09-14	--	--	--	--	--	--	--	--	--	--
433223112470201	77-09-14	--	--	--	--	--	--	--	--	--	--
432620112561301	77-09-20	--	--	--	--	--	--	--	--	--	--
433544112391301	77-09-14	--	--	--	--	--	--	--	--	--	--
433544112392501	77-09-14	--	--	--	--	--	--	--	--	--	--
432701112471101	77-09-14	--	--	--	--	--	--	--	--	--	--
433445112395001	77-09-14	--	--	--	--	--	--	--	--	--	--
433255112384001	77-09-14	--	--	--	--	--	--	--	--	--	--
432019112565101	77-09-20	--	--	--	--	--	--	--	--	--	--
432638112484101	77-09-14	--	--	--	--	--	--	--	--	--	--
430952112323801	77-08-17	--	3	--	200	4	--	--	--	40	--
BLAINE COUNTY--Continued											
432020114251201	77-08-09	--	--	--	--	--	--	--	--	610	--
BOISE COUNTY--Continued											
435250115542901	77-09-28	--	0	--	4	10	--	--	--	1200	--
434926115501401	77-09-22	--	100	--	10	0	--	--	--	7200	--
435628115565101	77-09-28	--	0	--	8	10	--	--	--	80	--
440652115580901	77-09-23	--	4	--	50	0	--	--	--	220	--
440439115354101	77-09-23	--	0	--	10	10	--	--	--	70	--
BONNER COUNTY--Continued											
480046116373601	77-07-28	--	--	--	--	--	--	--	--	10	--
480004116390501	77-08-10	--	--	--	--	--	--	--	--	20	--
475935116405001	77-08-10	--	--	--	--	--	--	--	--	60	--
480135116531301	77-08-11	--	--	--	--	--	--	--	--	10	--
485100116532101	77-07-19	--	--	--	--	--	--	--	--	10	--
475844116521801	77-08-23	--	--	--	--	--	--	--	--	40	--
480207117001401	77-08-23	--	--	--	--	--	--	--	--	10	--
480012117002901	77-08-09	--	--	--	--	--	--	--	--	10	--
475923116533701	77-08-08	--	--	--	--	--	--	--	--	630	--
480559117010401	77-08-23	--	--	--	--	--	--	--	--	10	--
480821117012301	77-08-11	--	--	--	--	--	--	--	--	60	--
481047116562901	77-08-23	--	--	--	--	--	--	--	--	10	--
480959117012001	77-08-23	--	--	--	--	--	--	--	--	110	--
481656116552601	77-08-24	--	--	--	--	--	--	--	--	5300	--
483020116543701	77-08-25	--	--	--	--	--	--	--	--	60	--
483232116552901	77-08-25	--	--	--	--	--	--	--	--	70	--
483832116520301	77-08-25	--	--	--	--	--	--	--	--	50	--
BONNEVILLE COUNTY--Continued											
432533112100701	77-08-18	--	1	--	90	0	--	--	--	0	--
432606112000601	77-08-17	--	1	--	70	8	--	--	--	40	--
431940111071501	77-07-13	--	0	0	4	--	--	--	--	10	--
432952112045301	77-08-16	--	0	--	80	12	--	--	--	0	--
432856112060801	77-08-16	--	1	--	70	0	--	--	--	0	--
433307112300001	77-09-14	--	--	--	--	--	--	--	--	--	--
433405111180001	77-07-13	--	0	0	9	--	--	--	--	20	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
				ADA COUNTY--Continued							
433736116190501	77-07-29	32	--	20	--	--	.1	--	--	--	--
433417116172701	77-08-01	--	--	--	--	--	--	--	--	--	--
433407116233801	77-08-25	27	--	10	--	--	.0	--	--	--	.00
433648116153901	77-08-23	37	--	6	--	--	.0	--	--	--	--
433558116111201	77-07-29	32	--	8	--	--	.1	--	--	--	--
433437116113501	77-07-29	2	--	1	--	--	.2	--	--	--	--
433328116094201	77-07-29	33	--	8	--	--	2.0	--	--	--	--
433830116193401	77-08-25	38	--	2	--	--	.0	--	--	--	.00
433804116252701	77-08-25	31	--	2	--	--	.0	--	--	--	.00
				BINGHAM COUNTY--Continued							
433509112384401	77-09-14	--	--	--	--	--	--	--	--	--	--
433223112470201	77-09-14	--	--	--	--	--	--	--	--	--	--
432620112561301	77-09-20	--	--	--	--	--	--	--	--	--	--
433544112391801	77-09-14	--	--	--	--	--	--	--	--	--	--
433544112392501	77-09-14	--	--	--	--	--	--	--	--	--	--
432701112471101	77-09-14	--	--	--	--	--	--	--	--	--	--
433445112395001	77-09-14	--	--	--	--	--	--	--	--	--	--
433255112384001	77-09-14	--	--	--	--	--	--	--	--	--	--
432019112565101	77-09-20	--	--	--	--	--	--	--	--	--	--
432638112484101	77-09-14	--	--	--	--	--	--	--	--	--	--
430952112323801	77-06-17	27	--	60	--	--	.2	--	--	--	--
				BLAINE COUNTY--Continued							
432020114251201	77-08-09	--	--	--	260	--	--	--	--	--	--
				BOISE COUNTY--Continued							
435250115542901	77-09-28	19	--	8	--	--	.4	--	--	--	--
434926115501401	77-09-22	9	--	0	--	--	.0	--	--	--	--
435628115565101	77-09-28	7	--	0	--	--	.0	--	--	--	--
440652115580901	77-09-23	67	--	20	--	--	.0	--	--	--	--
440439115354101	77-09-23	46	--	10	--	--	.0	--	--	--	--
				BONNER COUNTY--Continued							
480046116373601	77-07-28	--	--	--	--	--	--	--	--	--	--
480004116390501	77-08-10	--	--	--	--	--	--	--	--	--	--
475935116405001	77-08-10	--	--	--	--	--	--	--	--	--	--
480135116531301	77-08-11	--	--	--	--	--	--	--	--	--	--
485100116532101	77-07-19	--	--	--	--	--	--	--	--	--	--
475844116521801	77-08-23	--	--	--	--	--	--	--	--	--	--
480207117001401	77-08-23	--	--	--	--	--	--	--	--	--	--
480012117002901	77-08-09	--	--	--	--	--	--	--	--	--	--
475923116533701	77-08-08	--	--	--	--	--	--	--	--	--	--
480559117010401	77-08-23	--	--	--	--	--	--	--	--	--	--
480821117012301	77-08-11	--	--	--	--	--	--	--	--	--	--
481047116562901	77-08-23	--	--	--	--	--	--	--	--	--	--
480959117012001	77-08-23	--	--	--	--	--	--	--	--	--	--
481656116552601	77-08-24	--	--	--	--	--	--	--	--	--	--
483020116543701	77-08-25	--	--	--	--	--	--	--	--	--	--
483232116552901	77-08-25	--	--	--	--	--	--	--	--	--	--
48383211652030	77-08-25	--	--	--	--	--	--	--	--	--	--
				BONNEVILLE COUNTY--Continued							
432533112100701	77-08-18	11	--	60	--	--	.8	--	--	--	--
432606112000601	77-08-17	31	--	30	--	--	.1	--	--	--	.00
431940111071501	77-07-13	--	--	2	4	--	.0	--	100	--	--
432952112045301	77-08-16	97	--	40	--	--	.4	--	--	--	.00
432856112060801	77-08-16	10	--	40	--	--	1.5	--	--	--	--
433307112300001	77-09-14	--	--	--	--	--	--	--	--	--	--
433405111180001	77-07-13	--	--	2	0	--	.0	--	180	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)
ADA COUNTY--Continued											
433736116190501	77-07-29	--	--	--	--	--	--	--	--	--	--
433417116172701	77-08-01	--	--	--	--	--	--	--	--	--	--
433407116233801	77-08-25	.00	.00	.0	.00	.00	.00	.00	.00	.00	0
433648116153901	77-08-23	--	--	--	--	--	--	--	--	--	--
433558116111201	77-07-29	--	--	--	--	--	--	--	--	--	--
433437116113501	77-07-29	--	--	--	--	--	--	--	--	--	--
433328116094201	77-07-29	--	--	--	--	--	--	--	--	--	--
433830116193401	77-08-25	.00	.00	.0	.00	.00	.00	.00	.00	.00	0
433804116252701	77-08-25	.00	.00	.0	.00	.00	.00	.00	.00	.00	0
BINGHAM COUNTY--Continued											
433509112384801	77-09-14	--	--	--	--	--	--	--	--	--	--
433223112470201	77-09-14	--	--	--	--	--	--	--	--	--	--
432620112561301	77-09-20	--	--	--	--	--	--	--	--	--	--
433544112391901	77-09-14	--	--	--	--	--	--	--	--	--	--
433544112392501	77-09-14	--	--	--	--	--	--	--	--	--	--
432701112471101	77-09-14	--	--	--	--	--	--	--	--	--	--
433445112395001	77-09-14	--	--	--	--	--	--	--	--	--	--
433255112384001	77-09-14	--	--	--	--	--	--	--	--	--	--
432019112565101	77-09-20	--	--	--	--	--	--	--	--	--	--
432638112484101	77-09-14	--	--	--	--	--	--	--	--	--	--
430952112323801	77-08-17	--	--	--	--	--	--	--	--	--	--
BLAINE COUNTY--Continued											
432020114251201	77-08-09	--	--	--	--	--	--	--	--	--	--
BOISE COUNTY--Continued											
435250115542901	77-09-28	--	--	--	--	--	--	--	--	--	--
434926115501401	77-09-22	--	--	--	--	--	--	--	--	--	--
435628115565101	77-09-28	--	--	--	--	--	--	--	--	--	--
440652115580901	77-09-23	--	--	--	--	--	--	--	--	--	--
440439115354101	77-09-23	--	--	--	--	--	--	--	--	--	--
BONNER COUNTY--Continued											
480046116373601	77-07-28	--	--	--	--	--	--	--	--	--	--
480004116390501	77-08-10	--	--	--	--	--	--	--	--	--	--
475935116405001	77-08-10	--	--	--	--	--	--	--	--	--	--
480135116531301	77-08-11	--	--	--	--	--	--	--	--	--	--
485100116532101	77-07-19	--	--	--	--	--	--	--	--	--	--
475844116521801	77-08-23	--	--	--	--	--	--	--	--	--	--
480207117001401	77-08-23	--	--	--	--	--	--	--	--	--	--
480012117002901	77-08-09	--	--	--	--	--	--	--	--	--	--
475923116533701	77-08-08	--	--	--	--	--	--	--	--	--	--
480559117010401	77-08-23	--	--	--	--	--	--	--	--	--	--
480821117012301	77-08-11	--	--	--	--	--	--	--	--	--	--
481047116562901	77-08-23	--	--	--	--	--	--	--	--	--	--
480959117012001	77-08-23	--	--	--	--	--	--	--	--	--	--
481656116552601	77-08-24	--	--	--	--	--	--	--	--	--	--
483020116543701	77-08-25	--	--	--	--	--	--	--	--	--	--
483232116552901	77-08-25	--	--	--	--	--	--	--	--	--	--
483832116520301	77-08-25	--	--	--	--	--	--	--	--	--	--
BONNEVILLE COUNTY--Continued											
432533112100701	77-08-18	--	--	--	--	--	--	--	--	--	--
432606112000601	77-08-17	.00	.00	.0	.00	.00	.00	.00	.00	.00	0
431940111071501	77-07-13	--	--	--	--	--	--	--	--	--	--
432952112045301	77-08-16	.00	.00	.0	.00	.00	.00	.00	.00	.00	0
432856112060801	77-08-16	--	--	--	--	--	--	--	--	--	--
433307112300001	77-09-14	--	--	--	--	--	--	--	--	--	--
433405111180001	77-07-13	--	--	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
				ADA COUNTY--Continued				
433736116190501	77-07-29	--	--	--	--	--	--	--
433417116172701	77-08-01	--	--	--	--	--	--	--
433407116233801	77-08-25	.00	.00	.00	.0	.00	.00	.00
433648116153901	77-08-23	--	--	--	--	--	--	--
433558116111201	77-07-29	--	--	--	--	--	--	--
433437116113501	77-07-29	--	--	--	--	--	--	--
433328116094201	77-07-29	--	--	--	--	--	--	--
433830116193401	77-08-25	.00	.00	.00	.0	.00	.00	.00
433804116252701	77-08-25	.00	.00	.00	.0	.00	.00	.00
				BINGHAM COUNTY--Continued				
433509112364801	77-09-14	--	--	--	--	--	--	--
433223112470201	77-09-14	--	--	--	--	--	--	--
432620112561301	77-09-20	--	--	--	--	--	--	--
433544112391801	77-09-14	--	--	--	--	--	--	--
433544112392501	77-09-14	--	--	--	--	--	--	--
432701112471101	77-09-14	--	--	--	--	--	--	--
433445112395001	77-09-14	--	--	--	--	--	--	--
433255112384001	77-09-14	--	--	--	--	--	--	--
432019112565101	77-09-20	--	--	--	--	--	--	--
432638112484101	77-09-14	--	--	--	--	--	--	--
430952112323801	77-08-17	--	--	--	--	--	--	--
				BLAINE COUNTY--Continued				
432020114251201	77-08-09	--	--	--	--	--	--	--
				BOISE COUNTY--Continued				
435250115542901	77-09-28	--	--	--	--	--	--	--
434926115501401	77-09-22	--	--	--	--	--	--	--
435628115565101	77-09-28	--	--	--	--	--	--	--
440652115580901	77-09-23	--	--	--	--	--	--	--
440439115354101	77-09-23	--	--	--	--	--	--	--
				BONNER COUNTY--Continued				
480046116373601	77-07-28	--	--	--	--	--	--	--
480004116390501	77-08-10	--	--	--	--	--	--	--
475935116405001	77-08-10	--	--	--	--	--	--	--
480135116531301	77-08-11	--	--	--	--	--	--	--
485100116532101	77-07-19	--	--	--	--	--	--	--
475844116521801	77-08-23	--	--	--	--	--	--	--
480207117001401	77-08-23	--	--	--	--	--	--	--
480012117002901	77-08-09	--	--	--	--	--	--	--
475923116533701	77-08-08	--	--	--	--	--	--	--
480559117010401	77-08-23	--	--	--	--	--	--	--
480821117012301	77-08-11	--	--	--	--	--	--	--
481047116562901	77-08-23	--	--	--	--	--	--	--
480959117012001	77-08-23	--	--	--	--	--	--	--
481656116552601	77-08-24	--	--	--	--	--	--	--
483020116543701	77-08-25	--	--	--	--	--	--	--
483232116552901	77-08-25	--	--	--	--	--	--	--
483832116520301	77-08-25	--	--	--	--	--	--	--
				BONNEVILLE COUNTY--Continued				
432533112100701	77-08-18	--	--	--	--	--	--	--
432606112000601	77-08-17	.00	.00	.00	.0	.00	.00	.00
431940111071501	77-07-13	--	--	--	--	--	--	--
432952112045301	77-08-16	.00	.00	.00	.0	.00	.00	.00
432856112060801	77-08-16	--	--	--	--	.00	.00	.00
433307112300001	77-09-14	--	--	--	--	--	--	--
433405111180001	77-07-13	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SAMP-LING DEPTH (FT)
				BUTTE COUNTY					
433106112492101	43 31 06	112 49 21	01	ARA 2	023	77-09-23	1048	--	--
433156112494401	43 31 56	112 49 44	01	ARA 3	023	77-09-23	1030	--	--
433204112562001	43 32 04	112 56 20	01	CFA PRODUCTION 1	023	77-09-06	0905	--	--
433144112563501	43 31 44	112 56 35	01	CFA PRODUCTION 2	023	77-09-06	0850	--	--
433433112560201	43 34 33	112 56 02	01	CPP PRODUCTION 1	023	77-09-05	1600	--	--
433051113002601	43 30 51	113 00 26	01	EBR I	023	77-09-23	1130	--	--
433256113002501	43 32 56	113 00 25	01	HWY #3	023	77-09-14	1813	--	--
433523112573201	43 35 23	112 57 32	01	MTR TEST	023	77-09-28	1420	--	--
433117112534601	43 31 17	112 53 46	01	ORME PRODUCTION	023	77-09-28	1330	--	--
433002113021701	43 30 02	113 02 17	01	RWMC PRODUCTION	023	77-09-23	1145	--	--
434027112575601	43 40 27	112 57 56	01	SITE #17	023	77-09-27	1440	--	--
433522112582101	43 35 22	112 58 21	01	SITE #19	023	77-09-06	1130	--	540
433626112510601	43 36 26	112 51 06	01	SITE #4	023	77-09-23	0945	--	--
433826112510601	43 38 26	112 51 06	01	SITE #6	023	77-09-13	1840	--	--
433123112530101	43 31 23	112 53 01	01	SITE #9	023	77-09-06	1530	--	700
433252112520301	43 32 52	112 52 03	01	SPERT PRODUCTION 1	023	77-09-06	1545	--	--
433246112515201	43 32 46	112 51 52	01	SPERT PRODUCTION 4	023	77-09-23	1321	--	--
435056112420001	43 50 56	112 42 00	01	TAN PRODUCTION 1	023	77-09-07	1145	--	--
433521112574201	43 35 21	112 57 42	01	TRA PRODUCTION 4	023	77-09-06	1232	--	--
433402112561801	43 34 02	112 56 18	01	USGS #45	023	77-09-05	1235	--	500
432336113064201	43 23 36	113 06 42	01	USGS 11	023	77-09-20	1235	--	--
434128112551201	43 41 28	112 55 12	01	USGS 12	023	77-09-27	0950	--	--
434230112523001	43 42 30	112 52 30	01	USGS 15	023	77-09-27	0840	--	--
433938112520001	43 39 38	112 52 00	01	USGS 17	023	77-09-13	1900	--	--
434538112442901	43 45 38	112 44 29	01	USGS 18	023	77-09-13	1630	--	--
434055113000101	43 40 55	113 00 01	01	USGS 23	023	77-09-20	1810	--	--
434444112322601	43 44 44	112 32 26	01	USGS 32	023	77-09-13	1115	--	--
433338112565801	43 33 38	112 56 58	01	USGS 35	023	77-09-28	0940	--	--
433330112564601	43 33 30	112 56 46	01	USGS 36	023	77-09-05	1730	--	540
433326112564801	43 33 26	112 56 48	01	USGS 37	023	77-09-05	1652	--	550
433343112570101	43 33 43	112 57 01	01	USGS 39	023	77-09-05	1810	--	500
433413112561201	43 34 13	112 56 12	01	USGS 40	023	77-09-05	1055	--	475
433408112561201	43 34 08	112 56 12	01	USGS 41	023	77-09-05	1120	--	500
433403112561201	43 34 03	112 56 12	01	USGS 42	023	77-09-05	1215	--	500
433415112561501	43 34 15	112 56 15	01	USGS 43	023	77-09-05	1030	--	500
433409112562101	43 34 09	112 56 21	01	USGS 44	023	77-09-05	0943	--	500
433407112561501	43 34 07	112 56 15	01	USGS 46	023	77-09-05	1143	--	500
433401112560301	43 34 01	112 56 03	01	USGS 48	023	77-09-21	1500	--	--
433403112555401	43 34 03	112 55 54	01	USGS 49	023	77-09-05	1415	--	520
433415112554401	43 34 15	112 55 44	01	USGS 52	023	77-09-05	1445	--	500
433344112562601	43 33 44	112 56 26	01	USGS 57	023	77-09-05	1620	--	550
433500112572501	43 35 00	112 57 25	01	USGS 58	023	77-09-06	1255	--	495
433354112554801	43 33 54	112 55 48	01	USGS 59	023	77-09-05	1355	--	500
434031112452701	43 40 31	112 45 27	01	USGS 6	023	77-09-13	1735	--	--
433447112574701	43 34 47	112 57 47	01	USGS 65	023	77-09-06	1100	--	--
433344112554101	43 33 44	112 55 41	01	USGS 67	023	77-09-05	1335	--	500
433425112573201	43 34 25	112 57 32	01	USGS 76	023	77-09-06	1030	--	500
433315112560501	43 33 15	112 56 05	01	USGS 77	023	77-09-06	1340	--	540
433505112581901	43 35 05	112 58 19	01	USGS 79	023	77-09-06	1200	--	550
433121113115801	43 31 21	113 11 58	01	USGS 8	023	77-09-20	1610	--	--
433401112551001	43 34 01	112 55 10	01	USGS 82	023	77-09-05	1530	--	500
433023112561501	43 30 23	112 56 15	01	USGS 83	023	77-09-06	1610	--	560
433356112574201	43 33 56	112 57 42	01	USGS 84	023	77-09-28	1515	--	--
433246112571201	43 32 46	112 57 12	01	USGS 85	023	77-09-28	0915	--	--
432935113080001	43 29 35	113 08 00	01	USGS 86	023	77-09-20	1530	--	--
433005113032801	43 30 05	113 03 28	01	USGS 89	023	77-09-14	1745	--	--
433808112551501	43 38 08	112 55 15	01	USGS 97	023	77-09-27	1135	--	--
433657112563701	43 36 57	112 56 37	01	USGS 98	023	77-09-27	1315	--	--
433705112552101	43 37 05	112 55 21	01	USGS 99	023	77-09-27	1215	--	--
432424113165401	43 24 24	113 16 54	01	01N 27E 22ACB1	023	77-09-29	1400	--	--
432732113044001	43 27 32	113 04 40	01	02N 28E 35ADA1 USGS#9	023	77-09-20	1415	--	--
432954113020501	43 29 54	113 02 05	01	02N 29E 17CBC1 USGS#90	023	77-09-14	1555	--	--
433001113025300	43 30 01	113 02 53	00	02N 29E 18ACB1	023	76-10-29	--	--	216
					023	77-05-02	--	--	216
433013113024301	43 30 13	113 02 43	01	02N 29E 18BDA1 USGS#87	023	77-09-06	1645	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BUTTE COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (GPM)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
433106112492101	77-09-23	--	--	--	--	--	--	--	--	140	8
433156112494401	77-09-23	--	--	--	--	--	--	--	--	150	18
433204112562001	77-09-06	--	--	--	545	7.8	12.5	--	--	220	92
433144112563501	77-09-06	--	--	--	552	7.8	12.5	--	--	230	120
433433112560201	77-09-05	--	--	--	351	8.0	--	--	--	170	13
433051113002601	77-09-23	--	--	--	--	--	--	--	--	120	4
433256113002501	77-09-14	--	--	--	--	--	--	--	--	160	4
433523112573201	77-09-28	--	--	--	--	--	--	--	--	200	11
433117112534601	77-09-28	--	--	--	--	--	--	--	--	88	0
433002113021701	77-09-23	--	--	--	--	--	--	--	--	160	27
434027112575601	77-09-27	--	--	--	--	--	--	--	--	220	31
433522112582101	77-09-06	--	--	--	413	7.7	13.5	--	--	200	35
433626112510601	77-09-23	--	--	--	--	--	--	--	--	240	67
433826112510601	77-09-13	--	--	--	--	--	--	--	--	150	10
433123112530101	77-09-06	--	--	--	159	8.3	12.5	--	--	52	0
433252112520301	77-09-06	--	--	--	340	8.0	--	--	--	150	12
433246112515201	77-09-23	--	--	--	--	--	--	--	--	110	2
435056112420001	77-09-07	--	--	--	387	7.9	11.0	--	--	180	27
433521112574201	77-09-06	--	--	--	401	7.9	--	--	--	200	27
433402112561801	77-09-05	--	--	--	421	7.9	14.0	--	--	190	34
432336113064201	77-09-20	--	--	--	--	--	--	--	--	160	37
434128112551201	77-09-27	--	--	--	--	--	--	--	--	230	99
434230112523001	77-09-27	--	--	--	--	--	--	--	--	140	9
433938112520001	77-09-13	--	--	--	--	--	--	--	--	120	5
434538112442901	77-09-13	--	--	--	--	--	--	--	--	82	1
434055113000101	77-09-20	--	--	--	--	--	--	--	--	170	22
434444112322601	77-09-13	--	--	--	--	--	--	--	--	170	38
433338112565801	77-09-28	--	--	--	--	--	--	--	--	180	15
433330112564601	77-09-05	--	--	--	516	7.9	13.0	--	--	200	40
433326112564801	77-09-05	--	--	--	501	7.9	14.0	--	--	200	48
433343112570101	77-09-05	--	--	--	367	8.0	12.5	--	--	190	25
433413112561201	77-09-05	--	--	--	914	7.6	--	--	--	230	85
433408112561201	77-09-05	--	--	--	436	8.0	14.5	--	--	200	42
433403112561201	77-09-05	--	--	--	383	7.9	13.5	--	--	180	28
433415112561501	77-09-05	--	--	--	397	7.9	14.0	--	--	190	34
433409112562101	77-09-05	--	--	--	388	8.2	12.0	--	--	180	20
433407112561501	77-09-05	--	--	--	481	--	14.5	--	--	180	27
433401112560301	77-09-21	--	--	--	--	--	--	--	--	190	33
433403112555401	77-09-05	--	--	--	465	7.8	14.5	--	--	190	29
433415112554401	77-09-05	--	--	--	278	8.6	--	--	--	79	31
433344112562601	77-09-05	--	--	--	663	8.0	15.5	--	--	210	50
433500112572501	77-09-06	--	--	--	443	7.9	--	--	--	210	40
433354112554801	77-09-05	--	--	--	440	7.8	14.0	--	--	180	24
434031112452701	77-09-13	--	--	--	--	--	--	--	--	120	0
433447112574701	77-09-06	--	--	--	555	8.3	14.5	--	--	260	150
433344112554101	77-09-05	--	--	--	735	7.8	15.0	--	--	220	75
433425112573201	77-09-06	--	--	--	446	7.9	13.0	--	--	220	32
433315112560501	77-09-06	--	--	--	560	7.9	13.5	--	--	200	68
433505112581901	77-09-06	--	--	--	351	7.8	13.0	--	--	160	33
433121113115801	77-09-20	--	--	--	--	--	--	--	--	170	22
433401112551001	77-09-05	--	--	--	322	7.9	13.5	--	--	140	28
433023112561501	77-09-06	752	--	--	245	7.9	12.5	--	--	110	6
433356112574201	77-09-28	--	--	--	--	--	--	--	--	190	26
433246112571201	77-09-28	--	--	--	--	--	--	--	--	170	14
432935113080001	77-09-20	--	--	--	--	--	--	--	--	130	31
433005113032801	77-09-14	--	--	--	--	--	--	--	--	130	49
433608112551501	77-09-27	--	--	--	--	--	--	--	--	250	53
433657112563701	77-09-27	--	--	--	--	--	--	--	--	190	18
433705112552101	77-09-27	--	--	--	--	--	--	--	--	230	41
432424113165401	77-09-29	--	--	--	297	7.4	--	--	--	140	20
432732113044001	77-09-20	--	--	--	--	--	--	--	--	64	7
432954113020501	77-09-14	--	--	--	--	--	--	--	--	160	20
433001113025300	76-10-29	--	--	--	--	--	8.0	--	--	140	0
	77-05-02	--	--	--	--	7.7	12.0	--	--	180	0
433013113024301	77-09-06	--	--	--	349	8.0	13.0	--	--	140	21

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	HY- DROXIDE ION (MG/L AS OH)	ALKA- LINITY, TOTAL (MG/L AS CACO3)
				BUTTE COUNTY--Continued							
433106112492101	77-09-23	33	14	15	19	.6	3.3	160	0	--	132
433156112494401	77-09-23	33	15	15	19	.6	3.3	160	0	--	132
433204112562001	77-09-06	58	19	20	16	.6	3.9	160	0	0	131
433144112563501	77-09-06	59	20	15	12	.4	3.7	140	0	0	115
433433112560201	77-09-05	46	13	8.2	9	.3	2.5	190	0	0	156
433051113002601	77-09-23	22	15	8.2	13	.3	3.3	140	0	--	116
433256113002501	77-09-14	45	11	6.0	7	.2	2.4	190	0	--	156
433523112573201	77-09-28	51	18	9.6	9	.3	1.7	230	0	--	189
433117112534601	77-09-28	12	13	8.6	17	.4	3.0	110	0	--	91
433002113021701	77-09-23	40	14	7.6	9	.3	2.5	160	0	--	133
434027112575601	77-09-27	54	19	9.9	9	.3	1.4	230	0	--	189
433522112582101	77-09-06	50	18	9.5	9	.3	2.3	200	0	0	164
433626112510601	77-09-23	62	19	9.6	8	.3	2.1	210	0	--	173
433826112510601	77-09-13	39	12	6.9	9	.2	2.4	170	0	--	140
433123112530101	77-09-06	9.0	7.2	12	32	.7	3.5	75	0	0	62
433252112520301	77-09-06	39	13	12	14	.4	2.6	170	0	0	139
433246112515201	77-09-23	26	10	8.9	15	.4	2.5	130	0	--	108
435056112420001	77-09-07	50	14	7.3	8	.2	2.5	190	0	0	156
433521112574201	77-09-06	50	18	7.6	8	.2	1.9	210	0	0	172
433402112561801	77-09-05	53	15	11	11	.3	2.7	190	0	0	156
432336113064201	77-09-20	38	14	7.1	9	.3	2.1	150	0	--	123
434128112551201	77-09-27	60	18	9.1	8	.3	1.9	160	0	--	131
434230112523001	77-09-27	30	16	7.9	11	.3	1.6	160	0	--	131
433938112520001	77-09-13	31	10	7.8	12	.3	2.5	140	0	--	115
434538112442901	77-09-13	17	9.1	10	22	.5	2.8	98	0	--	81
434055113000101	77-09-20	40	17	8.3	9	.3	1.5	180	0	--	148
434444112322601	77-09-13	43	14	19	20	.7	4.2	160	0	--	132
433338112565801	77-09-28	50	12	6.9	8	.2	2.0	200	0	--	165
433330112564601	77-09-05	55	14	28	23	.9	3.4	190	0	0	156
433326112564801	77-09-05	55	14	28	23	.9	3.4	180	0	0	148
433343112570101	77-09-05	54	13	7.7	8	.2	2.3	200	0	0	164
433413112561201	77-09-05	70	14	98	47	2.8	3.5	180	0	0	148
433408112561201	77-09-05	56	14	17	16	.5	2.5	190	0	0	156
433403112561201	77-09-05	52	13	8.6	9	.3	2.3	190	0	0	156
433415112561501	77-09-05	53	14	10	10	.3	2.5	190	0	0	156
433409112562101	77-09-05	52	13	10	10	.3	2.4	200	0	0	164
433407112561501	77-09-05	50	14	25	23	.8	2.7	190	0	0	156
433401112560301	77-09-21	51	13	20	20	.7	2.6	190	0	--	157
433403112555401	77-09-05	51	14	21	20	.7	2.8	190	0	0	156
433415112554401	77-09-05	20	6.9	20	34	1.0	4.5	52	3	0	48
433344112562601	77-09-05	59	14	52	35	1.6	3.8	190	0	0	156
433500112572501	77-09-06	57	17	8.1	8	.2	2.2	210	0	0	172
433354112554801	77-09-05	49	14	18	18	.6	2.9	190	0	0	156
434031112452701	77-09-13	28	10	14	22	.6	3.1	160	0	--	132
433447112574701	77-09-06	77	17	12	9	.3	4.4	140	0	0	115
433344112554101	77-09-05	61	17	61	37	1.8	4.8	180	0	0	148
433425112573201	77-09-06	57	19	9.0	8	.3	2.1	230	0	0	189
433315112560501	77-09-06	55	15	32	25	1.0	4.2	160	0	0	131
433505112581901	77-09-06	46	12	7.3	9	.2	2.3	160	0	0	131
433121113115801	77-09-20	42	14	6.0	7	.2	1.7	180	0	--	148
433401112551001	77-09-05	34	14	11	14	.4	3.1	140	0	0	115
433023112561501	77-09-06	29	9.6	8.5	14	.3	2.7	130	0	0	107
433356112574201	77-09-28	52	14	8.1	8	.3	2.0	200	0	--	164
433246112571201	77-09-28	48	12	17	18	.6	2.9	190	0	--	156
432935113080001	77-09-20	35	9.2	9.9	14	.4	3.4	120	0	--	99
433005113032801	77-09-14	25	15	23	28	.9	4.1	95	0	--	79
433808112551501	77-09-27	65	20	11	9	.3	2.0	240	0	--	197
433657112563701	77-09-27	46	18	10	11	.3	2.7	210	0	--	172
433705112552101	77-09-27	59	20	10	9	.3	1.8	230	0	--	189
432424113165401	77-09-29	36	13	8.4	11	.3	2.1	150	0	--	120
432732113044001	77-09-20	10	9.0	13	30	.8	4.9	69	0	--	57
432954113020501	77-09-14	40	13	8.9	11	.3	2.6	170	0	--	140
433001113025300	76-10-29	29	17	120	62	4.4	12	290	0	0	238
	77-05-02	42	17	120	58	3.9	12	340	0	0	279
433013113024301	77-09-06	36	13	17	20	.6	3.4	150	0	0	123

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BUTTE COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DISSOLVED (MG/L AS CO_2)	SULFATE DISSOLVED (MG/L AS SO_4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	IODIDE, DISSOLVED (MG/L AS I)	SILICA, DISSOLVED (MG/L AS SIO_2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
433106112492101	77-09-23	--	15	19	.5	--	--	--	--	--
433156112494401	77-09-23	--	21	17	.4	--	--	--	--	--
433204112562001	77-09-06	4.1	29	72	.2	.3	--	26	308	--
433144112563501	77-09-06	3.6	32	81	.2	.1	--	28	308	--
433433112560201	77-09-05	3.0	22	10	.3	.1	--	23	219	--
433051113002601	77-09-23	--	13	6.6	.1	--	--	--	--	--
433256113002501	77-09-14	--	17	7.4	.1	--	--	--	--	--
433523112573201	77-09-28	--	21	15	.0	--	--	--	--	--
433117112534601	77-09-28	--	3.2	19	.0	--	--	--	--	--
433002113021701	77-09-23	--	19	12	.1	--	--	--	--	--
434027112575601	77-09-27	--	20	15	.0	--	--	--	--	--
433522112582101	77-09-06	6.4	31	19	.2	.1	--	24	253	--
433626112510601	77-09-23	--	27	31	.1	--	--	--	--	--
433826112510601	77-09-13	--	15	9.9	.1	--	--	--	--	--
433123112530101	77-09-06	.6	1.4	17	.3	.1	--	1.0	89	--
433252112520301	77-09-06	2.7	20	16	.3	.1	--	27	214	--
433246112515201	77-09-23	--	11	7.1	.2	--	--	--	--	--
435056112420001	77-09-07	3.8	31	13	.2	.1	--	23	235	--
433521112574201	77-09-06	4.2	22	14	.2	.1	--	21	239	--
433402112561801	77-09-05	3.8	28	24	.2	.1	--	22	250	--
432336113064201	77-09-20	--	19	12	.1	--	--	--	--	--
434128112551201	77-09-27	--	23	21	.1	--	--	--	--	--
434230112523001	77-09-27	--	14	6.2	.0	--	--	--	--	--
433938112520001	77-09-13	--	14	5.3	.1	--	--	--	--	--
434538112442901	77-09-13	--	5.4	9.7	.1	--	--	--	--	--
434055113000101	77-09-20	--	18	14	.1	--	--	--	--	--
434444112322601	77-09-13	--	30	37	.4	--	--	--	--	--
433338112565801	77-09-28	--	19	8.9	.1	--	--	--	--	--
433330112564601	77-09-05	3.8	25	52	.2	.1	--	23	295	--
433326112564801	77-09-05	3.6	26	52	.2	.1	--	23	291	--
433343112570101	77-09-05	3.2	25	14	.2	.0	--	21	236	--
433413112561201	77-09-05	7.2	45	150	.4	.4	--	23	493	--
433408112561201	77-09-05	3.0	26	32	.3	.1	--	23	265	--
433403112561201	77-09-05	3.8	21	15	.2	.1	--	22	228	--
433415112561501	77-09-05	3.8	22	18	.2	.1	--	22	236	--
433409112562101	77-09-05	2.0	21	16	.2	.1	--	21	235	--
433407112561501	77-09-05	--	25	38	.2	.1	--	23	272	--
433401112560301	77-09-21	--	21	36	.1	--	--	--	--	--
433403112555401	77-09-05	4.8	24	36	.2	.1	--	23	266	--
433415112554401	77-09-05	.2	22	39	.3	.1	--	14	156	--
433344112562601	77-09-05	3.0	34	87	.3	.1	--	23	367	--
433500112572501	77-09-06	4.2	45	14	.2	.1	--	23	270	--
433354112554801	77-09-05	4.8	23	31	.2	.1	--	23	255	--
434031112452701	77-09-13	--	7.6	12	.1	--	--	--	--	--
433447112574701	77-09-06	1.1	130	21	.2	.1	--	22	353	--
433344112554101	77-09-05	4.6	34	110	.2	.2	--	25	402	--
433425112573201	77-09-06	4.6	30	16	.2	.1	--	21	268	--
433315112560501	77-09-06	3.2	27	73	.2	.1	--	25	311	--
433505112581901	77-09-06	4.1	23	19	.2	.1	--	24	213	--
433121113115801	77-09-20	--	15	8.8	.1	--	--	--	--	--
433401112551001	77-09-05	2.8	20	21	.2	.0	--	27	199	--
433023112561501	77-09-06	2.6	14	6.8	.2	.0	--	31	166	--
433356112574201	77-09-28	--	32	12	.1	--	--	--	--	--
433246112571201	77-09-28	--	16	31	.1	--	--	--	--	--
432935113080001	77-09-20	--	18	19	.0	--	--	--	--	--
433005113032801	77-09-14	--	35	51	.2	--	--	--	--	--
433808112551501	77-09-27	--	30	32	.1	--	--	--	--	--
433657112563701	77-09-27	--	17	15	.1	--	--	--	--	--
433705112552101	77-09-27	--	27	28	.0	--	--	--	--	--
432424113165401	77-09-29	9.6	18	9.6	.2	--	--	26	190	.26
432732113044001	77-09-20	--	3.9	25	.0	--	--	--	--	--
432954113020501	77-09-14	--	24	16	.1	--	--	--	--	--
433001113025300	76-10-29	--	64	81	.4	.3	--	22	490	--
	77-05-02	11	67	81	.6	.0	--	22	530	--
433013113024301	77-09-06	2.4	23	24	.2	.0	--	25	216	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
BUTTE COUNTY--Continued				
433106112492101	77-09-23	--	--	--
433156112494401	77-09-23	--	--	--
433204112562001	77-09-06	--	--	--
433144112563501	77-09-06	--	--	--
433433112560201	77-09-05	--	--	--
433051113002601	77-09-23	--	--	--
433256113002501	77-09-14	--	--	--
433523112573201	77-09-28	--	--	--
433117112534601	77-09-28	--	--	--
433002113021701	77-09-23	--	--	--
434027112575601	77-09-27	--	--	--
433522112582101	77-09-06	--	--	--
433626112510601	77-09-23	--	--	--
433826112510601	77-09-13	--	--	--
433123112530101	77-09-06	--	--	--
433252112520301	77-09-06	--	--	--
433246112515201	77-09-23	--	--	--
435056112420001	77-09-07	--	--	--
433521112574201	77-09-06	--	--	--
433402112561801	77-09-05	--	--	--
432336113064201	77-09-20	--	--	--
434128112551201	77-09-27	--	--	--
434230112523001	77-09-27	--	--	--
433938112520001	77-09-13	--	--	--
434538112442901	77-09-13	--	--	--
434055113000101	77-09-20	--	--	--
434444112322601	77-09-13	--	--	--
433338112565801	77-09-28	--	--	--
433330112564601	77-09-05	--	--	--
433326112564801	77-09-05	--	--	--
433343112570101	77-09-05	--	--	--
433413112561201	77-09-05	--	--	--
433408112561201	77-09-05	--	--	--
433403112561201	77-09-05	--	--	--
433415112561501	77-09-05	--	--	--
433409112562101	77-09-05	--	--	--
433407112561501	77-09-05	--	--	--
433401112560301	77-09-21	--	--	--
433403112555401	77-09-05	--	--	--
433415112554401	77-09-05	--	--	--
433344112562601	77-09-05	--	--	--
433500112572501	77-09-06	--	--	--
433354112554801	77-09-05	--	--	--
434031112452701	77-09-13	--	--	--
433447112574701	77-09-06	--	--	--
433344112554101	77-09-05	--	--	--
433425112573201	77-09-06	--	--	--
433315112560501	77-09-06	--	--	--
433505112581901	77-09-06	--	--	--
433121113115801	77-09-20	--	--	--
433401112551001	77-09-05	--	--	--
433023112561501	77-09-06	--	--	--
433356112574201	77-09-28	--	--	--
433246112571201	77-09-28	--	--	--
432935113080001	77-09-20	--	--	--
433005113032801	77-09-14	--	--	--
433808112551501	77-09-27	--	--	--
433657112563701	77-09-27	--	--	--
433705112552101	77-09-27	--	--	--
432424113165401	77-09-29	.50	.00	--
432732113044001	77-09-20	--	--	--
432954113020501	77-09-14	--	--	--
433001113025300	76-10-29	--	--	.18
	77-05-02	--	--	.12
433013113024301	77-09-06	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, HEXA-VALENT, DIS. (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	IRON (UG/L AS FE)
					BUTTE COUNTY--Continued						
433106112492101	77-09-23	--	--	--	--	--	--	--	--	--	--
433156112494401	77-09-23	--	--	--	--	--	--	--	--	--	--
433204112562001	77-09-06	10	--	--	20	10	0	0	10	10	--
433144112563501	77-09-06	10	--	--	10	0	20	24	20	10	--
433433112560201	77-09-05	10	--	--	20	0	10	0	10	0	--
433051113002601	77-09-23	--	--	--	--	--	--	--	--	--	--
433256113002501	77-09-14	--	--	--	--	--	--	--	--	--	--
433523112573201	77-09-28	--	--	--	--	--	--	--	--	--	--
433117112534601	77-09-28	--	--	--	--	--	--	--	--	--	--
433002113021701	77-09-23	--	--	--	--	--	--	--	--	--	--
434027112575601	77-09-27	--	--	--	--	--	--	--	--	--	--
433522112582101	77-09-06	10	--	--	20	20	20	0	40	10	--
433626112510601	77-09-23	--	--	--	--	--	--	--	--	--	--
433826112510601	77-09-13	--	--	--	--	--	--	--	--	--	--
433123112530101	77-09-06	10	--	--	30	0	0	0	0	10	--
433252112520301	77-09-06	10	--	--	20	0	0	6	0	10	--
433246112515201	77-09-23	--	--	--	--	--	--	--	--	--	--
435056112420001	77-09-07	10	--	--	20	0	0	0	0	0	--
433521112574201	77-09-06	10	--	--	20	0	0	4	0	10	--
433402112561801	77-09-05	0	--	--	20	0	20	0	20	10	--
432336113064201	77-09-20	--	--	--	--	--	--	--	--	--	--
434128112551201	77-09-27	--	--	--	--	--	--	--	--	--	--
434230112523001	77-09-27	--	--	--	--	--	--	--	--	--	--
433938112520001	77-09-13	--	--	--	--	--	--	--	--	--	--
434538112442901	77-09-13	--	--	--	--	--	--	--	--	--	--
434055113000101	77-09-20	--	--	--	--	--	--	--	--	--	--
434444112322601	77-09-13	--	--	--	--	--	--	--	--	--	--
433338112565801	77-09-28	--	--	--	--	--	--	--	--	--	--
433330112564601	77-09-05	10	--	--	30	0	10	16	10	10	--
433326112564801	77-09-05	10	--	--	30	0	20	13	20	10	--
433343112570101	77-09-05	60	--	--	20	0	20	0	20	60	--
433413112561201	77-09-05	0	--	--	70	10	120	0	130	20	--
433408112561201	77-09-05	0	--	--	20	0	10	0	10	10	--
433403112561201	77-09-05	0	--	--	20	0	10	7	10	10	--
433415112561501	77-09-05	0	--	--	20	0	0	6	0	10	--
433409112562101	77-09-05	0	--	--	20	0	0	0	0	10	--
433407112561501	77-09-05	0	--	--	30	0	10	14	10	10	--
433401112560301	77-09-21	--	--	--	--	--	--	--	--	--	--
433403112555401	77-09-05	0	--	--	20	10	0	15	10	10	--
433415112554401	77-09-05	0	--	--	20	0	0	1	0	10	--
433344112562601	77-09-05	0	--	--	50	30	0	44	30	10	--
433500112572501	77-09-06	10	--	--	20	70	0	0	60	40	--
433354112554801	77-09-05	10	--	--	20	0	20	10	20	20	--
434031112452701	77-09-13	--	--	--	--	--	--	--	--	--	--
433447112574701	77-09-06	10	--	--	10	250	130	0	380	20	--
433344112554101	77-09-05	30	--	--	50	0	20	0	20	10	--
433425112573201	77-09-06	0	--	--	20	0	20	16	20	10	--
433315112560501	77-09-06	0	--	--	30	20	0	14	20	10	--
433505112581901	77-09-06	0	--	--	20	10	10	11	20	10	--
433121113115801	77-09-20	--	--	--	--	--	--	--	--	--	--
433401112551001	77-09-05	0	--	--	20	0	10	1	10	10	--
433023112561501	77-09-06	0	--	--	10	20	0	8	20	10	--
433356112574201	77-09-28	--	--	--	--	--	--	--	--	--	--
433246112571201	77-09-28	--	--	--	--	--	--	--	--	--	--
432935113080001	77-09-20	--	--	--	--	--	--	--	--	--	--
433005113032801	77-09-14	--	--	--	--	--	--	--	--	--	--
433808112551501	77-09-27	--	--	--	--	--	--	--	--	--	--
433657112563701	77-09-27	--	--	--	--	--	--	--	--	--	--
433705112552101	77-09-27	--	--	--	--	--	--	--	--	60	--
432424113165401	77-09-29	--	1	--	10	20	--	--	--	--	--
432732113044001	77-09-20	--	--	--	--	--	--	--	--	--	--
432954113020501	77-09-14	--	--	--	--	--	--	--	--	430	--
433001113025300	76-10-29	330	--	--	110	--	--	--	--	50	--
	77-05-02	80	--	--	110	--	--	--	--	10	--
433013113024301	77-09-06	0	--	--	10	20	0	6	10	10	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)
					BUTTE COUNTY--Continued						
433106112492101	77-09-23	--	--	--	--	--	--	--	--	--	--
433156112494401	77-09-23	--	--	--	--	--	--	--	--	--	--
433204112562001	77-09-06	--	--	--	0	--	--	--	350	--	--
433144112563501	77-09-06	--	--	--	0	--	--	--	370	--	--
433433112560201	77-09-05	--	--	--	0	--	--	--	230	--	--
433051113002601	77-09-23	--	--	--	--	--	--	--	--	--	--
433256113002501	77-09-14	--	--	--	--	--	--	--	--	--	--
433523112573201	77-09-28	--	--	--	--	--	--	--	--	--	--
433117112534601	77-09-28	--	--	--	--	--	--	--	--	--	--
433002113021701	77-09-23	--	--	--	--	--	--	--	--	--	--
434027112575601	77-09-27	--	--	--	--	--	--	--	--	--	--
433522112582101	77-09-06	--	--	--	0	--	--	--	220	--	--
433626112510601	77-09-23	--	--	--	--	--	--	--	--	--	--
433826112510601	77-09-13	--	--	--	--	--	--	--	--	--	--
433123112530101	77-09-06	--	--	--	0	--	--	--	80	--	--
433252112520301	77-09-06	--	--	--	0	--	--	--	200	--	--
433246112515201	77-09-23	--	--	--	--	--	--	--	--	--	--
435056112420001	77-09-07	--	--	--	0	--	--	--	260	--	--
433521112574201	77-09-06	--	--	--	10	--	--	--	210	--	--
433402112561801	77-09-05	--	--	--	0	--	--	--	290	--	--
432336113064201	77-09-20	--	--	--	--	--	--	--	--	--	--
434128112551201	77-09-27	--	--	--	--	--	--	--	--	--	--
434230112523001	77-09-27	--	--	--	--	--	--	--	--	--	--
433938112520001	77-09-13	--	--	--	--	--	--	--	--	--	--
434538112442901	77-09-13	--	--	--	--	--	--	--	--	--	--
434055113000101	77-09-20	--	--	--	--	--	--	--	--	--	--
434444112322601	77-09-13	--	--	--	--	--	--	--	--	--	--
433338112565401	77-09-28	--	--	--	--	--	--	--	--	--	--
433330112564601	77-09-05	--	--	--	0	--	--	--	340	--	--
433326112564801	77-09-05	--	--	--	0	--	--	--	330	--	--
433343112570101	77-09-05	--	--	--	0	--	--	--	280	--	--
433413112561201	77-09-05	--	--	--	10	--	--	--	320	--	--
433408112561201	77-09-05	--	--	--	10	--	--	--	280	--	--
433403112561201	77-09-05	--	--	--	10	--	--	--	290	--	--
433415112561501	77-09-05	--	--	--	0	--	--	--	280	--	--
433409112562101	77-09-05	--	--	--	20	--	--	--	310	--	--
433407112561501	77-09-05	--	--	--	0	--	--	--	310	--	--
433401112560301	77-09-21	--	--	--	--	--	--	--	--	--	--
433403112555401	77-09-05	--	--	--	0	--	--	--	260	--	--
433415112554401	77-09-05	--	--	--	0	--	--	--	380	--	--
433344112562601	77-09-05	--	--	--	0	--	--	--	320	--	--
433500112572501	77-09-06	--	--	--	0	--	--	--	260	--	--
433354112554801	77-09-05	--	--	--	0	--	--	--	260	--	--
434031112452701	77-09-13	--	--	--	--	--	--	--	--	--	--
433447112574701	77-09-06	--	--	--	0	--	--	--	390	--	--
433344112554101	77-09-05	--	--	--	0	--	--	--	370	--	--
433425112573201	77-09-06	--	--	--	0	--	--	--	220	--	--
433315112560501	77-09-06	--	--	--	0	--	--	--	320	--	--
433505112581901	77-09-06	--	--	--	0	--	--	--	200	--	--
433121113115401	77-09-20	--	--	--	--	--	--	--	--	--	--
433401112551001	77-09-05	--	--	--	0	--	--	--	190	--	--
433023112561501	77-09-06	--	--	--	10	--	--	--	160	--	--
433356112574201	77-09-28	--	--	--	--	--	--	--	--	--	--
433246112571201	77-09-28	--	--	--	--	--	--	--	--	--	--
432935113080001	77-09-20	--	--	--	--	--	--	--	--	--	--
433005113032801	77-09-14	--	--	--	--	--	--	--	--	--	--
433808112551501	77-09-27	--	--	--	--	--	--	--	--	--	--
433657112563701	77-09-27	--	--	--	--	--	--	--	--	--	--
433705112552101	77-09-27	--	--	--	--	--	--	--	--	--	--
432424113165401	77-09-29	4	--	3	--	--	.0	--	--	--	--
432732113044001	77-09-20	--	--	--	--	--	--	--	--	--	--
432954113020501	77-09-14	--	--	--	--	--	--	--	--	--	--
433001113025300	76-10-29	--	--	--	70	--	--	--	290	--	--
	77-05-02	--	--	--	80	--	--	--	350	--	--
433013113024301	77-09-06	--	--	--	0	--	--	--	200	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SAMP-LING DEPTH (FT)
BUTTE COUNTY									
432940113030201	43 29 40	113 03 02	01	02N 29E 18CCD1 USGS#88	023	77-09-14	1702	--	--
433548112562301	43 35 48	112 56 23	01	03N 29E 12DDB1 FIRE STA	023	77-09-23	0902	--	--
433521112573801	43 35 21	112 57 38	01	03N 29E 14ACD1 MTR#1	023	77-09-21	1409	--	--
433423113031901	43 34 23	113 03 19	01	03N 29E 19CBB1 USGS#22	023	77-09-06	1725	--	640
433334112565201	43 33 34	112 56 55	01	03N 29E 25BDC1 USGS#34	023	77-09-05	1750	--	575
433322112564301	43 33 22	112 56 43	01	03N 29E 25CAD1 USGS#38	023	77-09-28	1010	--	--
433543112493801	43 35 43	112 49 38	01	03N 30E 12CDD1 USGS#5	023	77-09-27	1630	--	--
433419112560201	43 34 19	112 56 02	01	03N 30E 19CBB1 USGS#50	023	77-09-21	1535	--	--
433407112560301	43 34 07	112 56 03	01	03N 30E 19CCB1 USGS#47	023	77-09-21	1440	--	--
433352112560601	43 33 50	112 56 06	01	03N 30E 30BBB1 USGS#51	023	77-09-05	1305	--	500
433253112550301	43 32 53	112 55 03	01	03N 30E 31AAD1 USGS#20	023	77-09-06	1500	--	530
433320112432301	43 33 20	112 43 22	01	03N 32E 29DDC1 USGS#2	023	77-09-14	1130	--	--
433858112545501	43 38 58	112 54 55	01	04N 30E 30AAD2 NRF#3	023	77-09-26	1315	--	--
433854112545401	43 38 54	112 54 54	01	04N 30E 30ADA1 STR#2-NR	023	77-09-26	1325	--	--
434430112575901	43 44 27	112 57 56	01	05N 29E 23CDD1 USGS#19	023	77-09-06	1820	--	295
434334112463101	43 43 34	112 46 31	01	05N 31E 28CCC1 SITE #14	023	77-09-07	1545	--	--
435152112443101	43 51 52	112 44 31	01	06N 31E 10ACC1 ANP#6	023	77-09-07	0920	--	230
435100112420701	43 51 00	112 42 07	01	06N 31E 13ACC1 TAN#2 AN	023	77-09-07	1153	--	--
435053112420801	43 50 53	112 42 08	01	06N 31E 13DBB1 USGS#24	023	77-09-07	0840	--	300
435120112432101	43 51 20	112 43 21	01	06N 31E 14ABB1 FET#1	023	77-09-07	1234	--	--
435119112431801	43 51 19	112 43 18	01	06N 31E 14ABB2 FET#2	023	77-09-07	1242	--	--
434926112444201	43 49 26	112 44 42	01	06N 31E 27BAD1 USGS#7	023	77-09-07	1515	--	250
435522112444201	43 55 22	112 44 42	01	07N 31E 22BCD1 ANP#7	023	77-09-07	1000	--	375
435443112435801	43 54 43	112 43 58	01	07N 31E 26BBC1 P & W #3	023	77-09-07	1025	--	350
435419112453101	43 54 19	112 45 31	01	07N 31E 28DAB1 P&W #2	023	77-09-07	1045	--	350
CAMAS COUNTY									
432502114522401	43 25 02	114 52 24	01	01N 13E 14CDA1	025	77-08-24	1145	--	--
432428114470802	43 24 28	114 47 08	02	01N 14E 22BCC2	025	77-08-11	1315	--	--
432236114381801	43 22 36	114 38 18	01	01N 15E 35BDD1	025	77-08-23	1645	--	--
432416114342801	43 24 16	114 34 28	01	01N 16E 20DBB1	025	77-08-12	1130	--	--
432035115030701	43 20 35	115 03 07	01	01S 12E 08DCD1	025	77-08-23	1330	--	--
431751115040001	43 17 51	115 04 00	01	01S 12E 31AAA1	025	77-08-08	1540	--	--
431706115004701	43 17 06	115 00 47	01	01S 12E 34DCD1	025	77-08-08	1355	--	--
432150114570001	43 21 50	114 57 00	01	01S 13E 06DAA1	025	77-08-09	1530	--	--
432036114521201	43 20 36	114 52 12	01	01S 13E 12CCC1	025	77-08-09	1730	--	--
432005114550801	43 20 05	114 55 08	01	01S 13E 16DBB1	025	77-08-23	1420	--	--
432006114565402	43 20 06	114 56 54	02	01S 13E 17CBB2	025	77-08-09	1450	--	--
431822114532401	43 18 22	114 53 24	01	01S 13E 27DAA1	025	77-08-09	1635	--	--
432148114435801	43 21 48	114 43 58	01	01S 14E 01DAA2	025	77-08-10	1630	--	--
432058114465001	43 20 58	114 46 50	01	01S 14E 09DAA1	025	77-08-09	1240	--	--
432046114472601	43 20 46	114 47 26	01	01S 14E 10CCB1	025	77-08-09	1215	--	--
431913114492701	43 19 13	114 49 27	01	01S 14E 19DAA1	025	77-08-09	1355	--	--
431743114480401	43 17 43	114 48 04	01	01S 14E 33BAD1	025	77-08-09	1320	--	--
432156114420501	43 21 56	114 42 05	01	01S 15E 05DBB1	025	77-08-10	1700	--	--
431952114413201	43 19 52	114 41 32	01	01S 15E 17DAD1	025	77-08-11	1530	--	--
431926114435201	43 19 26	114 43 52	01	01S 15E 19BCB1	025	77-08-23	1520	--	--
431704114422401	43 17 04	114 42 24	01	01S 15E 29BCC1	025	77-08-09	1045	--	--
432136114340001	43 21 36	114 34 00	01	01S 16E 04CDB1	025	77-08-11	1620	--	--
432030114362201	43 20 30	114 36 22	01	01S 16E 18BAB1	025	77-08-09	1000	--	--
431800114254201	43 18 00	114 25 42	01	01S 17E 34BAB1S	025	77-08-11	1050	--	--
431628114580801	43 16 28	114 58 08	01	02S 12E 01DAD1	025	77-08-10	1100	--	--
431620115044601	43 16 20	115 04 46	01	02S 12E 06CDB1	025	77-08-08	1655	--	--
431506114540401	43 15 06	114 54 04	01	02S 13E 15BDA1	025	77-08-10	1000	--	--
431700114232001	43 17 00	114 23 20	01	02S 17E 01BBD1	025	77-08-11	0950	--	--
CANYON COUNTY									
433935116364701	43 39 35	116 36 47	01	04N 02W 30AAD1	027	77-06-24	1145	--	--
CASSIA COUNTY									
423550113140501	42 35 50	113 14 05	01	09S 27E 36ADD1	031	77-08-18	1510	--	--
421345113215001	42 13 45	113 21 50	01	14S 26E 01CDA1	031	77-06-14	1445	--	--
420537113302801	42 05 37	113 30 28	01	15S 25E 26BBD1S	031	77-04-27	1245	--	--
420459113313601	42 04 59	113 31 36	01	15S 25E 29CDD1	031	76-10-07	1600	--	1200
420421113323701	42 04 21	113 32 37	01	15S 25E 33CAC1S	031	77-04-26	1235	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (GPM)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
BUTTE COUNTY--Continued											
432940113030201	77-09-14	--	--	--	--	--	--	--	--	120	45
433548112562301	77-09-23	--	--	--	--	--	--	--	--	210	36
433521112573801	77-09-21	--	--	--	--	--	--	--	--	200	19
433423113031901	77-09-06	--	--	--	386	8.0	18.0	--	--	120	61
433334112565201	77-09-05	--	--	--	412	7.9	12.0	--	--	190	25
433322112564301	77-09-28	--	--	--	--	--	--	--	--	140	25
433543112493801	77-09-27	--	--	--	--	--	--	--	--	120	0
433419112560201	77-09-21	--	--	--	--	--	--	--	--	200	52
433407112560301	77-09-21	--	--	--	--	--	--	--	--	180	31
433352112560601	77-09-05	--	--	--	372	7.9	14.5	--	--	160	16
433253112550301	77-09-06	--	--	--	313	7.9	13.0	--	--	140	27
433320112432301	77-09-14	--	--	--	--	--	--	--	--	110	0
433858112545501	77-09-26	--	--	--	--	--	--	--	--	250	60
433854112545401	77-09-26	--	--	--	--	--	--	--	--	250	52
434430112575901	77-09-06	--	--	--	407	7.8	17.0	--	--	190	15
434334112463101	77-09-07	717	--	--	319	8.0	16.5	--	--	140	5
435152112443101	77-09-07	--	--	--	374	7.9	13.5	--	--	180	28
435100112420701	77-09-07	--	--	--	384	7.8	10.5	--	--	190	34
435053112420801	77-09-07	--	--	--	625	7.9	10.5	--	--	270	100
435120112432101	77-09-07	--	--	--	385	8.1	11.0	--	--	190	39
435119112431801	77-09-07	--	--	--	385	7.8	11.0	--	--	190	39
434926112444201	77-09-07	--	--	--	186	8.3	15.5	--	--	43	0
435522112444201	77-09-07	--	--	--	344	7.9	10.0	--	--	170	26
435443112435801	77-09-07	--	--	--	344	7.9	10.0	--	--	170	22
435419112453101	77-09-07	--	--	--	345	7.9	11.0	--	--	180	20
CAMAS COUNTY--Continued											
432502114522401	77-08-24	110	--	--	215	6.9	10.5	--	--	66	0
432428114470802	77-08-11	141	--	--	141	7.3	12.0	--	--	49	0
432236114381801	77-08-23	202	--	--	161	7.0	12.5	--	--	51	0
432416114342801	77-08-12	26	--	--	241	7.4	12.0	--	--	100	0
432035115030701	77-08-23	67	--	--	210	7.8	11.5	--	--	68	0
431751115040001	77-08-08	81	--	--	107	7.2	11.0	--	--	32	0
431706115004701	77-08-08	180	--	12	246	8.4	16.0	--	--	21	0
432150114570001	77-08-09	118	--	--	163	7.7	13.0	--	--	53	0
432036114521201	77-08-09	100	--	--	174	7.7	12.5	--	--	43	0
432005114550801	77-08-23	415	--	1300	188	7.6	17.5	--	--	24	0
432006114565402	77-08-09	14	--	--	215	7.3	10.0	--	--	65	0
431822114532401	77-08-09	363	--	1150	301	8.5	20.0	--	--	8	0
432148114435801	77-08-10	500	--	--	135	7.4	14.0	--	--	47	0
432058114465001	77-08-09	760	--	215	172	8.0	21.0	--	--	19	0
432046114472601	77-08-09	300	--	--	122	7.5	16.5	--	--	40	0
431913114492701	77-08-09	280	--	300	157	7.5	21.5	--	--	34	0
431743114460401	77-08-09	--	--	2350	346	7.8	15.5	--	--	59	0
432156114420501	77-08-10	578	--	--	147	7.7	18.0	--	--	45	0
431952114413201	77-08-11	222	--	--	212	7.6	16.5	--	--	51	0
431926114435201	77-08-23	11	--	--	416	6.8	12.0	--	--	120	53
431704114422401	77-08-09	155	--	--	285	8.2	14.0	--	--	75	0
432136114340001	77-08-11	208	--	500	285	7.5	14.0	--	--	55	0
432030114362201	77-08-09	61	--	--	241	7.3	12.0	--	--	89	0
431800114254201	77-08-11	--	--	--	177	7.3	13.0	--	--	63	0
431628114580801	77-08-10	279	--	--	254	7.3	11.5	--	--	58	0
431620115044601	77-08-08	--	--	4.0	301	7.2	16.5	--	--	38	0
431506114540401	77-08-10	120	--	--	138	7.2	10.0	--	--	48	0
431700114232001	77-08-11	180	--	--	393	8.2	18.0	--	--	35	0
CANYON COUNTY--Continued											
433935116364701	77-08-24	--	--	--	184	8.0	18.0	--	--	58	0
CASSIA COUNTY--Continued											
423550113140501	77-08-18	--	--	--	490	7.5	15.0	--	--	150	0
421345113215001	77-06-14	--	--	--	600	9.3	63.0	--	--	3	0
420537113302801	77-04-27	--	--	--	360	8.9	16.0	--	--	120	44
420459113313601	76-10-07	--	--	--	540	8.9	60.0	--	--	9	0
420421113323701	77-04-26	--	--	--	2050	9.4	9.0	--	--	470	160

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	HY-DROXIDE ION (MG/L AS OH)	ALKA-LINITY, TOTAL (MG/L AS CACO3)
BUTTE COUNTY--Continued											
432940113030201	77-09-14	25	14	42	42	1.7	6.7	92	0	--	76
433548112562301	77-09-23	54	18	8.7	8	.3	2.4	210	0	--	174
433521112573801	77-09-21	50	18	9.3	9	.3	1.7	220	0	--	181
433423113031901	77-09-06	30	11	24	29	1.0	5.7	73	0	0	60
433334112565201	77-09-05	54	13	14	14	.4	2.6	200	0	0	164
433322112564301	77-09-28	33	13	36	36	1.4	3.4	140	0	--	115
433543112493801	77-09-27	30	10	7.9	12	.3	2.5	150	0	--	123
433419112560201	77-09-21	54	16	85	47	2.6	4.9	180	0	--	148
433407112560301	77-09-21	51	13	28	25	.9	2.5	180	0	--	149
433352112560601	77-09-05	44	13	14	15	.5	3.2	180	0	0	148
433253112550301	77-09-06	37	12	7.9	11	.3	2.7	140	0	0	115
433320112432301	77-09-14	29	9.6	14	22	.6	3.0	140	1	--	117
433858112545501	77-09-26	64	20	13	11	.4	2.1	230	0	--	190
433854112545401	77-09-26	64	20	13	11	.4	2.2	240	0	--	197
434430112575901	77-09-06	47	17	11	11	.3	1.7	210	0	0	172
434334112463101	77-09-07	33	13	15	19	.6	3.2	160	0	0	131
435152112443101	77-09-07	44	16	10	11	.3	2.5	180	0	0	148
435100112420701	77-09-07	51	15	7.2	8	.2	2.6	190	0	0	156
435053112420801	77-09-07	75	19	25	17	.7	3.4	200	0	0	164
435120112432101	77-09-07	50	15	7.5	8	.2	2.7	180	0	0	148
435119112431801	77-09-07	50	15	7.6	8	.2	2.8	180	0	0	148
434926112444201	77-09-07	7.4	6.0	23	51	1.5	4.4	98	0	0	80
435522112444201	77-09-07	43	16	6.1	7	.2	1.4	180	0	0	148
435443112435801	77-09-07	43	15	6.2	7	.2	1.4	180	0	0	148
435419112453101	77-09-07	44	16	6.2	7	.2	1.5	190	0	0	156
CAMAS COUNTY--Continued											
432502114522401	77-08-24	19	4.6	7.2	19	.4	1.3	140	0	--	110
432428114470802	77-08-11	13	4.1	8.8	28	.5	.8	70	0	--	57
432236114381801	77-08-23	14	4.0	9.2	28	.6	1.0	65	0	--	53
432416114342801	77-08-12	33	5.2	7.9	14	.3	1.2	140	0	--	110
432035115030701	77-08-23	18	5.7	14	30	.7	1.0	100	0	--	82
431751115040001	77-08-08	10	1.8	8.8	37	.7	.6	44	0	--	36
431706115004701	77-08-08	4.4	2.4	45	80	4.3	2.9	140	1	--	120
432150114570001	77-08-09	13	4.9	15	38	.9	.5	90	0	--	74
432036114521201	77-08-09	12	3.2	19	48	1.3	1.0	100	0	--	82
432005114550801	77-08-23	6.7	1.8	32	73	2.8	.8	110	0	--	90
432006114565402	77-08-09	17	5.4	18	38	1.0	.5	87	0	--	71
431822114532401	77-08-09	3.0	.0	68	95	11	.6	160	3	--	140
432148114435801	77-08-10	12	4.2	11	33	.7	1.4	73	0	--	60
432058114465001	77-08-09	5.6	1.1	35	80	3.5	.6	88	0	--	72
432046114472601	77-08-09	10	3.6	9.3	33	.6	.7	70	0	--	57
431913114492701	77-08-09	8.7	3.0	18	50	1.3	3.9	93	0	--	76
431743114480401	77-08-09	13	6.5	50	63	2.8	4.4	190	0	--	160
432156114420501	77-08-10	12	3.6	12	36	.8	1.9	73	0	--	60
431952114413201	77-08-11	12	5.2	18	41	1.1	3.1	120	0	--	98
431926114435201	77-08-23	32	10	30	35	1.2	.5	83	0	--	68
431704114422401	77-08-09	14	9.7	30	44	1.5	5.3	170	0	--	140
432136114340001	77-08-11	16	3.7	42	62	2.5	1.4	140	0	--	110
432030114362201	77-08-09	22	8.3	14	25	.6	1.8	120	0	--	98
431800114254201	77-08-11	15	6.3	10	25	.5	2.5	87	0	--	71
431628114580801	77-08-10	17	3.8	32	52	1.8	5.0	150	0	--	120
431620115044601	77-08-08	10	3.2	42	67	3.0	4.8	170	0	--	140
431506114540401	77-08-10	13	3.8	8.0	25	.5	2.6	62	0	--	51
431700114232001	77-08-11	9.2	3.0	78	79	5.7	8.0	240	0	--	200
CANYON COUNTY--Continued											
433935116364701	77-08-24	17	3.8	14	34	.8	1.8	74	0	--	61
CASSIA COUNTY--Continued											
423550113140501	77-08-18	35	16	38	34	1.3	4.0	210	0	--	170
421345113215001	77-06-14	1.0	.2	170	98	41	2.9	240	36	--	260
420537113302801	77-04-27	35	8.1	16	22	.6	3.5	92	1	--	77
420459113313601	76-10-07	3.6	.0	120	95	17	3.4	65	20	--	87
420421113323701	77-04-26	140	29	250	52	5.0	21	370	1	--	310

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	IODIDE, DISSOLVED (MG/L AS I)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
BUTTE COUNTY--Continued										
432940113030201	77-09-14	--	55	68	.2	--	--	--	--	--
433548112562301	77-09-23	--	21	22	.1	--	--	--	--	--
433521112573801	77-09-21	--	22	15	.0	--	--	--	--	--
433423113031901	77-09-06	1.2	19	71	.2	1.6	--	12	211	--
433334112565201	77-09-05	4.0	26	22	.3	.1	--	21	252	--
433322112564301	77-09-28	--	19	64	.1	--	--	--	--	--
433543112493801	77-09-27	--	40	13	.1	--	--	--	--	--
433419112560201	77-09-21	--	43	110	.3	--	--	--	--	--
433407112560301	77-09-21	--	23	45	.7	--	--	--	--	--
433352112560601	77-09-05	3.6	19	20	.2	.1	--	23	225	--
433253112550301	77-09-06	2.8	17	20	.2	.1	--	25	191	--
433320112432301	77-09-14	--	7.2	14	.7	--	--	--	--	--
433858112545501	77-09-26	--	34	33	.1	--	--	--	--	--
433854112545401	77-09-26	--	32	36	.1	--	--	--	--	--
434430112575901	77-09-06	5.3	25	14	.2	.1	--	15	235	--
434334112463101	77-09-07	2.6	22	12	.5	.0	--	31	209	--
435152112443101	77-09-07	3.6	32	14	.3	.0	--	24	232	--
435100112420701	77-09-07	4.8	31	13	.2	.1	--	22	236	--
435053112420801	77-09-07	4.0	50	73	.2	.4	--	20	365	--
435120112432101	77-09-07	2.3	33	16	.2	.1	--	22	235	--
435119112431801	77-09-07	4.6	33	14	.2	.1	--	23	235	--
434926112444201	77-09-07	.8	1.3	13	1.5	.0	--	1.5	107	--
435522112444201	77-09-07	3.6	26	7.7	.3	.0	--	13	202	--
435443112435801	77-09-07	3.6	25	9.6	.2	.1	--	14	203	--
435419112453101	77-09-07	3.8	26	7.0	.2	.0	--	15	210	--
CAMAS COUNTY--Continued										
432502114522401	77-08-24	28	1.4	1.1	.1	--	--	22	144	.20
432428114470802	77-08-11	5.6	3.3	1.2	.1	--	--	36	102	.14
432236114381801	77-08-23	10	6.5	2.7	.2	--	--	32	102	.14
432416114342801	77-08-12	8.9	3.0	2.2	.1	--	--	20	142	.19
432035115030701	77-08-23	2.5	5.9	2.7	.2	--	--	39	136	.19
431751115040001	77-08-08	4.4	3.3	2.2	.2	--	--	33	82	.11
431706115004701	77-08-08	.9	.6	3.5	2.0	--	--	46	177	.24
432150114570001	77-08-09	2.9	2.8	1.6	.5	--	--	41	124	.17
432036114521201	77-08-09	3.2	1.4	1.7	.8	--	--	46	136	.19
432005114550801	77-08-23	4.4	1.2	2.0	1.2	--	--	34	134	.18
432006114565402	77-08-09	7.0	5.0	6.6	.5	--	--	33	129	.18
431822114532401	77-08-09	.8	2.1	6.2	4.6	--	--	60	227	.31
432148114435801	77-08-10	4.6	3.3	1.8	.4	--	--	40	110	.15
432058114465001	77-08-09	1.4	6.3	2.6	2.4	--	--	26	123	.17
432046114472601	77-08-09	3.5	1.6	.9	.1	--	--	34	95	.13
431913114492701	77-08-09	4.7	1.8	1.3	.6	--	--	64	148	.20
431743114480401	77-08-09	4.8	2.3	7.8	1.8	--	--	52	232	.32
432156114420501	77-08-10	2.3	3.9	2.1	.4	--	--	53	125	.17
431952114413201	77-08-11	4.8	1.9	2.4	.3	--	--	59	163	.22
431926114435201	77-08-23	21	36	10	.4	--	--	35	279	.38
431704114422401	77-08-09	1.7	.6	5.4	.5	--	--	38	187	.25
432136114340001	77-08-11	7.1	6.0	5.8	1.7	--	--	37	183	.25
432030114362201	77-08-09	9.6	5.5	3.1	.7	--	--	34	149	.20
431800114254201	77-08-11	7.0	3.7	5.7	.2	--	--	36	122	.17
431628114580801	77-08-10	12	1.7	3.4	1.3	--	--	58	198	.27
431620115044601	77-08-08	17	4.5	3.1	2.1	--	--	72	226	.31
431506114540401	77-08-10	6.3	3.1	3.2	.1	--	--	33	98	.13
431700114232001	77-08-11	2.4	2.7	9.5	1.9	--	--	53	284	.39
CANYON COUNTY--Continued										
433935116364701	77-08-24	1.2	15	6.7	.3	--	--	31	129	.18
CASSIA COUNTY--Continued										
423550113140501	77-08-18	11	16	45	.5	--	--	34	293	.40
421345113215001	77-06-14	.3	25	72	7.3	.2	.01	83	516	.70
420537113302801	77-04-27	.2	12	47	.2	--	--	43	212	--
420459113313601	76-10-07	.2	40	82	7.6	--	--	68	377	.51
420421113323701	77-04-26	.2	200	350	.4	--	--	41	1220	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
BUTTE COUNTY--Continued				
432940113030201	77-09-14	--	--	--
433548112562301	77-09-23	--	--	--
433521112573801	77-09-21	--	--	--
433423113031901	77-09-06	--	--	--
433334112565201	77-09-05	--	--	--
433322112564301	77-09-28	--	--	--
433543112493801	77-09-27	--	--	--
433419112560201	77-09-21	--	--	--
433407112560301	77-09-21	--	--	--
433352112560601	77-09-05	--	--	--
433253112550301	77-09-06	--	--	--
433320112432301	77-09-14	--	--	--
433858112545501	77-09-26	--	--	--
433854112545401	77-09-26	--	--	--
434430112575901	77-09-06	--	--	--
434334112463101	77-09-07	--	--	--
435152112443101	77-09-07	--	--	--
435100112420701	77-09-07	--	--	--
435053112420801	77-09-07	--	--	--
435120112432101	77-09-07	--	--	--
435119112431801	77-09-07	--	--	--
434926112444201	77-09-07	--	--	--
435522112444201	77-09-07	--	--	--
435443112435801	77-09-07	--	--	--
435419112453101	77-09-07	--	--	--
CAMAS COUNTY--Continued				
432502114522401	77-08-24	--	.16	--
432428114470802	77-08-11	--	.06	--
432236114381801	77-08-23	--	.06	--
432416114342801	77-08-12	--	.04	--
432035115030701	77-08-23	--	.13	--
431751115040001	77-08-08	--	.06	--
431706115004701	77-08-08	--	.18	--
432150114570001	77-08-09	--	.35	--
432036114521201	77-08-09	--	.17	--
432005114550801	77-08-23	--	.56	--
432006114565402	77-08-09	--	.20	--
431822114532401	77-08-09	--	.23	--
432148114435801	77-08-10	--	.11	--
432058114465001	77-08-09	--	.06	--
432046114472601	77-08-09	--	.06	--
431913114492701	77-08-09	--	.44	--
431743114480401	77-08-09	--	.33	--
432156114420501	77-08-10	--	.10	--
431952114413201	77-08-11	--	.58	--
431926114435201	77-08-23	19	.53	--
431704114422401	77-08-09	--	.11	--
432136114340001	77-08-11	--	.07	--
432030114362201	77-08-09	--	.05	--
431800114254201	77-08-11	--	.09	--
431628114580801	77-08-10	--	.37	--
431620115044601	77-08-08	--	.67	--
431506114540401	77-08-10	--	.07	--
431700114232001	77-08-11	--	.10	--
CANYON COUNTY--Continued				
433935116364701	77-08-24	.62	.08	--
CASSIA COUNTY--Continued				
423550113140501	77-08-18	.24	.02	--
421345113215001	77-06-14	.05	.07	--
420537113302801	77-04-27	.20	.04	--
420459113313601	76-10-07	.06	.04	--
420421113323701	77-04-26	1.0	.04	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	IRON, DISSOLVED (UG/L AS FE)	IRON (UG/L AS FE)
					BUTTE COUNTY--Continued						
432940113030201	77-09-14	--	--	--	--	--	--	--	--	--	--
433548112562301	77-09-23	--	--	--	--	--	--	--	--	--	--
433521112573801	77-09-21	--	--	--	--	--	--	--	--	--	--
433423113031901	77-09-06	10	--	--	30	0	0	0	0	10	--
433334112565201	77-09-05	10	--	--	20	0	0	0	0	10	--
433322112564301	77-09-28	--	--	--	--	--	--	--	--	--	--
433543112493801	77-09-27	--	--	--	--	--	--	--	--	--	--
433419112560201	77-09-21	--	--	--	--	--	--	--	--	--	--
433407112560301	77-09-21	--	--	--	--	--	--	--	--	--	--
433352112560601	77-09-05	0	--	--	20	0	0	0	0	10	--
433253112550301	77-09-06	10	--	--	20	10	10	0	20	10	--
433320112432301	77-09-14	--	--	--	--	--	--	--	--	--	--
433858112545501	77-09-26	--	--	--	--	--	--	--	--	--	--
433854112545401	77-09-26	--	--	--	--	--	--	--	--	--	--
434430112575901	77-09-06	10	--	--	30	0	20	0	20	0	--
434334112463101	77-09-07	10	--	--	30	0	0	0	0	10	--
435152112443101	77-09-07	10	--	--	20	0	0	0	0	10	--
435100112420701	77-09-07	10	--	--	20	0	0	3	0	10	--
435053112420801	77-09-07	10	--	--	330	0	10	0	10	10	--
435120112432101	77-09-07	0	--	--	20	20	0	4	20	10	--
435119112431901	77-09-07	10	--	--	20	0	0	5	0	30	--
434926112444201	77-09-07	10	--	--	50	0	0	0	0	10	--
435522112444201	77-09-07	10	--	--	20	0	0	0	0	10	--
435443112435801	77-09-07	10	--	--	10	0	0	0	0	20	--
435419112453101	77-09-07	10	--	--	10	0	10	0	10	0	--
					CAMAS COUNTY--Continued						
432502114522401	77-08-24	--	--	--	--	--	--	--	--	18000	--
432428114470802	77-08-11	--	--	--	--	--	--	--	--	10	--
432236114381801	77-08-23	--	--	--	--	--	--	--	--	30	--
432416114342801	77-08-12	--	--	--	--	--	--	--	--	20	--
432035115030701	77-08-23	--	--	--	--	--	--	--	--	170	--
431751115040001	77-08-08	--	--	--	--	--	--	--	--	30	--
431706115004701	77-08-08	--	--	--	--	--	--	--	--	30	--
432150114570001	77-08-09	--	--	--	--	--	--	--	--	310	--
432036114521201	77-08-09	--	--	--	--	--	--	--	--	660	--
432005114550801	77-08-23	--	--	--	--	--	--	--	--	90	--
432006114565402	77-08-09	--	--	--	--	--	--	--	--	20	--
431822114532401	77-08-09	--	--	--	--	--	--	--	--	30	--
432148114435801	77-08-10	--	--	--	--	--	--	--	--	50	--
432058114465001	77-08-09	--	--	--	--	--	--	--	--	20	--
432046114472601	77-08-09	--	--	--	--	--	--	--	--	30	--
431913114492701	77-08-09	--	--	--	--	--	--	--	--	440	--
431743114480401	77-08-09	--	--	--	--	--	--	--	--	360	--
432156114420501	77-08-10	--	--	--	--	--	--	--	--	30	--
431952114413201	77-08-11	--	--	--	--	--	--	--	--	1200	--
431926114435201	77-08-23	--	--	--	--	--	--	--	--	30	--
431704114422401	77-08-09	--	--	--	--	--	--	--	--	100	--
432136114340001	77-08-11	--	--	--	--	--	--	--	--	10	--
432030114362201	77-08-09	--	--	--	--	--	--	--	--	20	--
431800114254201	77-08-11	--	--	--	--	--	--	--	--	10	--
431628114580801	77-08-10	--	--	--	--	--	--	--	--	1100	--
431620115044601	77-08-08	--	--	--	--	--	--	--	--	670	--
431506114540401	77-08-10	--	--	--	--	--	--	--	--	300	--
431700114232001	77-08-11	--	--	--	--	--	--	--	--	80	--
					CANYON COUNTY--Continued						
433935116364701	77-08-24	--	0	--	20	0	--	--	--	40	--
					CASSIA COUNTY--Continued						
423550113140501	77-08-18	--	1	--	60	8	--	--	--	90	--
421345113215001	77-06-14	--	1	0	80	--	--	--	--	--	30
420537113302801	77-04-27	--	--	--	--	--	--	--	--	--	--
420459113313601	76-10-07	--	1	--	--	--	--	--	--	--	--
420421113323701	77-04-26	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)
BUTTE COUNTY--Continued											
432940113030201	77-09-14	--	--	--	--	--	--	--	--	--	--
433548112562301	77-09-23	--	--	--	--	--	--	--	--	--	--
433521112573801	77-09-21	--	--	--	--	--	--	--	--	--	--
433423113031901	77-09-06	--	--	--	0	--	--	--	220	--	--
433334112565201	77-09-05	--	--	--	0	--	--	--	300	--	--
433322112564301	77-09-28	--	--	--	--	--	--	--	--	--	--
433543112493801	77-09-27	--	--	--	--	--	--	--	--	--	--
433419112560201	77-09-21	--	--	--	--	--	--	--	--	--	--
433407112560301	77-09-21	--	--	--	--	--	--	--	--	--	--
433352112560601	77-09-05	--	--	--	40	--	--	--	230	--	--
433253112550301	77-09-06	--	--	--	0	--	--	--	190	--	--
433320112432301	77-09-14	--	--	--	--	--	--	--	--	--	--
433858112545501	77-09-26	--	--	--	--	--	--	--	--	--	--
433854112545401	77-09-26	--	--	--	--	--	--	--	--	--	--
434430112575901	77-09-06	--	--	--	40	--	--	--	260	--	--
434334112463101	77-09-07	--	--	--	0	--	--	--	160	--	--
435152112443101	77-09-07	--	--	--	0	--	--	--	190	--	--
435100112420701	77-09-07	--	--	--	0	--	--	--	260	--	--
435053112420801	77-09-07	--	--	--	10	--	--	--	490	--	--
435120112432101	77-09-07	--	--	--	0	--	--	--	230	--	--
435119112431801	77-09-07	--	--	--	0	--	--	--	220	--	--
434926112444201	77-09-07	--	--	--	0	--	--	--	80	--	--
435522112444201	77-09-07	--	--	--	0	--	--	--	150	--	--
435443112435801	77-09-07	--	--	--	0	--	--	--	150	--	--
435419112453101	77-09-07	--	--	--	0	--	--	--	140	--	--
CAMAS COUNTY--Continued											
432502114522401	77-08-24	--	--	--	700	--	--	--	--	--	--
432428114470802	77-08-11	--	--	--	0	--	--	--	--	--	--
432236114381801	77-06-23	--	--	--	0	--	--	--	--	--	--
432416114342801	77-08-12	--	--	--	4	--	--	--	--	--	--
432035115030701	77-08-23	--	--	--	0	--	--	--	--	--	--
431751115040001	77-08-08	--	--	--	4	--	--	--	--	--	--
431706115004701	77-08-08	--	--	--	20	--	--	--	--	--	--
432150114570001	77-08-09	--	--	--	200	--	--	--	--	--	--
432036114521201	77-08-09	--	--	--	680	--	--	--	--	--	--
432005114550801	77-08-23	--	--	--	140	--	--	--	--	--	--
432006114565402	77-08-09	--	--	--	20	--	--	--	--	--	--
431822114532401	77-08-09	--	--	--	0	--	--	--	--	--	--
432148114435801	77-08-10	--	--	--	40	--	--	--	--	--	--
432058114465001	77-08-09	--	--	--	4	--	--	--	--	--	--
432046114472601	77-08-09	--	--	--	0	--	--	--	--	--	--
431913114492701	77-08-09	--	--	--	260	--	--	--	--	--	--
431743114480401	77-08-09	--	--	--	230	--	--	--	--	--	--
432156114420501	77-08-10	--	--	--	30	--	--	--	--	--	--
431952114413201	77-08-11	--	--	--	310	--	--	--	--	--	--
431926114435201	77-08-23	--	--	--	0	--	--	--	--	--	--
431704114422401	77-08-09	--	--	--	60	--	--	--	--	--	--
432136114340001	77-08-11	--	--	--	4	--	--	--	--	--	--
432030114362201	77-08-09	--	--	--	20	--	--	--	--	--	--
431800114254201	77-08-11	--	--	--	0	--	--	--	--	--	--
431628114580801	77-08-10	--	--	--	500	--	--	--	--	--	--
431620115044601	77-08-08	--	--	--	180	--	--	--	--	--	--
431506114540401	77-08-10	--	--	--	190	--	--	--	--	--	--
431700114232001	77-08-11	--	--	--	50	--	--	--	--	--	--
CANYON COUNTY--Continued											
433935116364701	77-08-24	46	--	0	--	--	.0	--	--	--	.00
CASSIA COUNTY--Continued											
423550113140501	77-08-18	63	--	8	--	--	.9	--	--	--	--
421345113215001	77-06-14	--	--	140	4	--	.0	--	40	--	--
420537113302801	77-04-27	--	--	--	--	--	--	--	--	--	--
420459113313601	76-10-07	--	200	--	--	.0	--	90	--	--	--
420421113323701	77-04-26	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)
BUTTE COUNTY--Continued											
432940113030201	77-09-14	--	--	--	--	--	--	--	--	--	--
433548112562301	77-09-23	--	--	--	--	--	--	--	--	--	--
433521112573801	77-09-21	--	--	--	--	--	--	--	--	--	--
433423113031901	77-09-06	--	--	--	--	--	--	--	--	--	--
433334112565201	77-09-05	--	--	--	--	--	--	--	--	--	--
433322112564301	77-09-28	--	--	--	--	--	--	--	--	--	--
433543112493801	77-09-27	--	--	--	--	--	--	--	--	--	--
433419112560201	77-09-21	--	--	--	--	--	--	--	--	--	--
433407112560301	77-09-21	--	--	--	--	--	--	--	--	--	--
433352112560601	77-09-05	--	--	--	--	--	--	--	--	--	--
433253112550301	77-09-06	--	--	--	--	--	--	--	--	--	--
433320112432301	77-09-14	--	--	--	--	--	--	--	--	--	--
433858112545501	77-09-26	--	--	--	--	--	--	--	--	--	--
433854112545401	77-09-26	--	--	--	--	--	--	--	--	--	--
434430112575901	77-09-06	--	--	--	--	--	--	--	--	--	--
434334112463101	77-09-07	--	--	--	--	--	--	--	--	--	--
435152112443101	77-09-07	--	--	--	--	--	--	--	--	--	--
435100112420701	77-09-07	--	--	--	--	--	--	--	--	--	--
435053112420801	77-09-07	--	--	--	--	--	--	--	--	--	--
435120112432101	77-09-07	--	--	--	--	--	--	--	--	--	--
435119112431801	77-09-07	--	--	--	--	--	--	--	--	--	--
434926112444201	77-09-07	--	--	--	--	--	--	--	--	--	--
435522112444201	77-09-07	--	--	--	--	--	--	--	--	--	--
435443112435801	77-09-07	--	--	--	--	--	--	--	--	--	--
435419112453101	77-09-07	--	--	--	--	--	--	--	--	--	--
CAMAS COUNTY--Continued											
432502114522401	77-08-24	--	--	--	--	--	--	--	--	--	--
432428114470802	77-08-11	--	--	--	--	--	--	--	--	--	--
432236114381801	77-08-23	--	--	--	--	--	--	--	--	--	--
432416114342801	77-08-12	--	--	--	--	--	--	--	--	--	--
432035115030701	77-08-23	--	--	--	--	--	--	--	--	--	--
431751115040001	77-08-08	--	--	--	--	--	--	--	--	--	--
431706115004701	77-08-08	--	--	--	--	--	--	--	--	--	--
432150114570001	77-08-09	--	--	--	--	--	--	--	--	--	--
432036114521201	77-08-09	--	--	--	--	--	--	--	--	--	--
432005114550801	77-08-23	--	--	--	--	--	--	--	--	--	--
432006114565402	77-08-09	--	--	--	--	--	--	--	--	--	--
431822114532401	77-08-09	--	--	--	--	--	--	--	--	--	--
432148114435801	77-08-10	--	--	--	--	--	--	--	--	--	--
432058114465001	77-08-09	--	--	--	--	--	--	--	--	--	--
432046114472601	77-08-09	--	--	--	--	--	--	--	--	--	--
431913114492701	77-08-09	--	--	--	--	--	--	--	--	--	--
431743114480401	77-08-09	--	--	--	--	--	--	--	--	--	--
432156114420501	77-08-10	--	--	--	--	--	--	--	--	--	--
431952114413201	77-08-11	--	--	--	--	--	--	--	--	--	--
431926114435201	77-08-23	--	--	--	--	--	--	--	--	--	--
431704114422401	77-08-09	--	--	--	--	--	--	--	--	--	--
432136114340001	77-08-11	--	--	--	--	--	--	--	--	--	--
432030114362201	77-08-09	--	--	--	--	--	--	--	--	--	--
431800114254201	77-08-11	--	--	--	--	--	--	--	--	--	--
431628114580801	77-08-10	--	--	--	--	--	--	--	--	--	--
431620115044601	77-08-08	--	--	--	--	--	--	--	--	--	--
431506114540401	77-08-10	--	--	--	--	--	--	--	--	--	--
431700114232001	77-08-11	--	--	--	--	--	--	--	--	--	--
CANYON COUNTY--Continued											
433935116364701	77-08-24	.00	.00	.0	.00	.00	.00	.00	.00	.00	0
CASSIA COUNTY--Continued											
423550113140501	77-08-18	--	--	--	--	--	--	--	--	--	--
421345113215001	77-06-14	--	--	--	--	--	--	--	--	--	--
420537113302801	77-04-27	--	--	--	--	--	--	--	--	--	--
420459113313601	76-10-07	--	--	--	--	--	--	--	--	--	--
420421113323701	77-04-26	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
BUTTE COUNTY--Continued								
432940113030201	77-09-14	--	--	--	--	--	--	--
433548112562301	77-09-23	--	--	--	--	--	--	--
433521112573801	77-09-21	--	--	--	--	--	--	--
433423113031901	77-09-06	--	--	--	--	--	--	--
433334112565201	77-09-05	--	--	--	--	--	--	--
433322112564301	77-09-28	--	--	--	--	--	--	--
433543112493801	77-09-27	--	--	--	--	--	--	--
433419112560201	77-09-21	--	--	--	--	--	--	--
433407112560301	77-09-21	--	--	--	--	--	--	--
433352112560601	77-09-05	--	--	--	--	--	--	--
433253112550301	77-09-06	--	--	--	--	--	--	--
433320112432301	77-09-14	--	--	--	--	--	--	--
433850112545501	77-09-26	--	--	--	--	--	--	--
433854112545401	77-09-26	--	--	--	--	--	--	--
434430112575901	77-09-06	--	--	--	--	--	--	--
434334112463101	77-09-07	--	--	--	--	--	--	--
435152112443101	77-09-07	--	--	--	--	--	--	--
435100112420701	77-09-07	--	--	--	--	--	--	--
435053112420801	77-09-07	--	--	--	--	--	--	--
435120112432101	77-09-07	--	--	--	--	--	--	--
435119112431801	77-09-07	--	--	--	--	--	--	--
434926112444201	77-09-07	--	--	--	--	--	--	--
435522112444201	77-09-07	--	--	--	--	--	--	--
435443112435801	77-09-07	--	--	--	--	--	--	--
435419112453101	77-09-07	--	--	--	--	--	--	--
CAMAS COUNTY--Continued								
432502114522401	77-08-24	--	--	--	--	--	--	--
432428114470802	77-08-11	--	--	--	--	--	--	--
432236114381801	77-08-23	--	--	--	--	--	--	--
432416114342801	77-08-12	--	--	--	--	--	--	--
432035115030701	77-08-23	--	--	--	--	--	--	--
431751115040001	77-08-08	--	--	--	--	--	--	--
431706115004701	77-08-08	--	--	--	--	--	--	--
432150114570001	77-08-09	--	--	--	--	--	--	--
432036114521201	77-08-09	--	--	--	--	--	--	--
432005114550801	77-08-23	--	--	--	--	--	--	--
432006114565402	77-08-09	--	--	--	--	--	--	--
431822114532401	77-08-09	--	--	--	--	--	--	--
432148114435801	77-08-10	--	--	--	--	--	--	--
432058114465001	77-08-09	--	--	--	--	--	--	--
432046114472601	77-08-09	--	--	--	--	--	--	--
431913114492701	77-08-09	--	--	--	--	--	--	--
431743114480401	77-08-09	--	--	--	--	--	--	--
432156114420501	77-08-10	--	--	--	--	--	--	--
431952114413201	77-08-11	--	--	--	--	--	--	--
431926114435201	77-08-23	--	--	--	--	--	--	--
431704114422401	77-08-09	--	--	--	--	--	--	--
432136114340001	77-08-11	--	--	--	--	--	--	--
432030114362201	77-08-09	--	--	--	--	--	--	--
431800114254201	77-08-11	--	--	--	--	--	--	--
431628114580801	77-08-10	--	--	--	--	--	--	--
431620115044601	77-08-08	--	--	--	--	--	--	--
431506114540401	77-08-10	--	--	--	--	--	--	--
431700114232001	77-08-11	--	--	--	--	--	--	--
CANYON COUNTY--Continued								
433935116364701	77-08-24	.00	.00	.00	.0	.00	.00	.00
CASSIA COUNTY--Continued								
423550113140501	77-08-18	--	--	--	--	--	--	--
421345113215001	77-06-14	--	--	--	--	--	--	--
420537113302801	77-04-27	--	--	--	--	--	--	--
420459113313601	76-10-07	--	--	--	--	--	--	--
420421113323701	77-04-26	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SAMP-LING DEPTH (FT)
				CASSIA COUNTY					
420723113243101	42 07 23	113 24 31	01	15S 26E 15BBD1S	031	77-04-26	1320	--	--
420706113245101	42 07 06	113 24 51	01	15S 26E 16ADD1	031	77-04-26	1605	--	100
420628113280001	42 06 28	113 28 00	01	15S 26E 19BBD1S	031	77-04-26	1700	--	--
420627113222801	42 06 27	113 22 28	01	15S 26E 23AAA1	031	76-10-06	1500	--	6000
420534113215001	42 05 34	113 21 50	01	15S 26E 25BDA1	031	76-10-06	1600	--	--
				CLARK COUNTY					
442838111401901	44 28 38	111 40 19	01	13N 41E 06CDB1S	033	77-09-08	1600	--	--
				FREMONT COUNTY					
435410111343001	43 54 10	111 34 30	01	07N 41E 25CBD1	043	77-07-23	1610	--	--
435328111355201	43 53 28	111 35 52	01	07N 41E 34ADD1	043	77-06-16	1410	--	--
435335111351601	43 53 35	111 35 16	00	07N 41E 35CDD1	043	77-06-16	1530	--	--
435653111314301	43 56 53	111 31 43	01	07N 42E 08CAA1	043	77-07-22	1615	--	--
435535111332601	43 55 35	111 33 26	01	07N 42E 19BBB1	043	77-07-23	1525	--	--
440526111273101	44 05 26	111 27 31	01	09N 42E 23DAB1S	043	77-07-22	1140	--	--
					043	77-09-06	1000	--	--
440617111205600	44 06 17	111 20 56	00	09N 43E 14CDB1S	043	77-09-21	1330	--	--
441219111145901	44 12 19	111 14 59	01	10N 44E 10CBA1S	043	77-07-22	1245	--	--
					043	77-09-21	1230	--	--
440744111103500	44 07 44	111 10 35	00	10N 45E 06DD1S	043	77-09-21	1030	--	--
441734111271901	44 17 34	111 27 19	01	11N 42E 11DAD1	043	77-09-08	0930	--	--
442709111213501	44 27 09	111 21 35	01	13N 43E 15ADC1	043	77-09-08	1545	--	--
443003111151501	44 30 03	111 15 15	00	14N 44E 34BBB1S	043	77-07-22	1400	--	--
443745111195401	44 37 45	111 19 54	01	15N 43E 13BCA1	043	77-09-08	0900	--	--
				GOODING COUNTY					
424237114450701	42 42 37	114 45 07	01	08S 14E 25AAA1	047	77-08-19	1415	--	--
				JEFFERSON COUNTY					
434909112400401	43 49 09	112 40 04	01	ANP 10	051	77-09-07	1340	--	250
434854112322101	43 48 54	112 32 21	01	USGS 27	051	77-09-07	0802	--	250
433834111412401	43 38 34	111 41 24	00	04N 40E 25DCB1S	051	77-06-18	1430	--	--
434311112383001	43 43 07	112 38 27	01	05N 32E 36ADD1 USGS#21	051	77-09-13	1420	--	--
434605112342101	43 46 05	112 34 21	01	05N 33E 10CDC1	051	77-09-13	1230	--	--
434600112360101	43 46 00	112 36 01	01	05N 33E 17ADD1 USGS#28	051	77-09-13	1255	--	--
434657112282201	43 46 57	112 28 22	01	05N 34E 09BDA1 USGS#4	051	77-09-13	0830	--	--
434407112285101	43 44 07	112 28 51	01	05N 34E 29DAA1 USGS#29	051	77-09-13	1005	--	--
434941112454201	43 49 41	112 45 42	01	06N 31E 21DCC1	051	77-09-07	1500	--	250
435215112394[illegible]	43 52 15	112 39 42	01	06N 32E 11ABA1 USGS#26	051	77-09-07	1315	--	260
434952112411301	43 49 52	112 41 13	01	06N 32E 22CAC1 ANP#8LPT	051	77-09-05	1212	--	--
434856112400001	43 48 56	112 40 00	01	06N 32E 26CDB1	051	77-09-07	1350	--	250
434820112373001	43 48 20	112 37 30	01	06N 32E 36ADD1 OWSLEY#2	051	77-09-07	1415	--	250
				JEROME COUNTY					
423814114314001	42 38 14	114 31 40	01	09S 16E 24BAA1	053	77-08-19	1200	--	--
				KOOTENAI COUNTY					
474214116510201	47 42 14	116 51 02	01	50N 04W 05DDA1	055	77-08-03	1445	128.27	--
474246116534101	47 42 46	116 53 41	01	50N 05W 01AAD1	055	77-07-20	1545	198.00	--
474230116544901	47 42 30	116 54 49	01	50N 05W 01CBB1	055	77-07-20	1015	195.85	--
474210117004001	47 42 10	117 00 40	01	50N 05W 06DCC1	055	77-07-21	1250	141.38	--
474145117000701	47 41 45	117 00 07	01	50N 05W 07ADD1	055	77-08-01	1310	91.72	--
474529116452601	47 45 29	116 45 26	01	51N 03W 19BAB1	055	77-07-28	1100	162.70	--
474755116521901	47 47 55	116 52 19	01	51N 04W 06ADA1	055	77-07-12	1000	245.51	--
474715116460701	47 47 15	116 46 07	01	51N 04W 12ABA1	055	77-07-27	1130	71.67	--
474623116483101	47 46 23	116 48 31	01	51N 04W 15AAA1	055	77-07-13	1010	301.55	--
474558116484201	47 45 58	116 48 42	01	51N 04W 15DAB1	055	77-07-26	1500	300.92	--
474549116471701	47 45 49	116 47 17	01	51N 04W 17CBC1	055	77-07-27	0900	267.93	--
474444116525701	47 44 44	116 52 57	01	51N 04W 19CDD1	055	77-07-21	1355	257.18	--
474517116492801	47 45 17	116 49 28	01	51N 04W 22BCA1	055	77-08-04	1225	294.00	--
474501116471701	47 45 01	116 47 17	01	51N 04W 23DAA1	055	77-07-12	1304	267.14	--
474526116462201	47 45 26	116 46 22	01	51N 04W 24ABB1	055	77-07-26	1330	186.42	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (GPM)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
CASSIA COUNTY--Continued											
420723113243101	77-04-26	--	--	--	--	9.2	13.5	--	--	200	87
420706113245101	77-04-26	--	--	--	--	9.2	17.5	--	--	180	66
420628113280001	77-04-26	--	--	--	--	8.3	13.0	--	--	120	37
420627113222801	76-10-06	--	--	--	2300	5.9	62.0	--	--	88	39
420534113215001	76-10-06	--	--	--	5000	--	--	--	--	530	470
CLARK COUNTY--Continued											
442638111401901	77-09-08	--	--	--	352	7.2	18.0	--	--	190	32
FREMONT COUNTY--Continued											
435410111343001	77-07-23	--	--	--	520	7.6	35.0	--	--	--	--
435328111355201	77-06-16	--	--	--	450	7.6	33.0	--	--	87	0
435335111351601	77-06-16	--	--	--	535	7.5	32.5	--	--	--	--
435653111314301	77-07-22	--	--	--	390	7.5	33.5	--	--	--	--
435535111332601	77-07-23	--	--	--	500	7.7	43.5	--	--	--	--
440526111273101	77-07-22	--	--	--	170	8.5	39.5	--	--	--	--
	77-09-06	--	--	--	171	7.9	39.5	--	--	4	0
440617111205600	77-09-21	--	--	--	225	6.8	16.5	--	--	65	0
441219111145901	77-07-22	--	--	--	105	7.9	10.0	--	--	--	--
	77-09-21	--	--	--	118	6.8	10.5	--	--	21	0
440744111103500	77-09-21	--	--	--	225	6.6	13.5	--	--	120	1
441734111271901	77-09-08	--	--	--	130	7.2	12.5	--	--	72	14
442709111213501	77-09-08	--	--	--	96	6.7	8.5	--	--	39	0
443003111151501	77-07-22	--	--	--	100	7.6	11.5	--	--	--	--
443745111195401	77-09-08	--	--	--	320	6.9	12.5	--	--	190	6
GOODING COUNTY--Continued											
424237114450701	77-08-19	--	--	--	520	7.3	17.0	--	--	210	19
JEFFERSON COUNTY--Continued											
434909112400401	77-09-07	--	--	--	179	8.7	16.0	--	--	63	0
434854112322101	77-09-07	312	--	--	430	7.9	15.5	--	--	160	32
433834111412401	77-06-18	--	--	--	7000	6.4	59.0	--	--	--	--
434311112383001	77-09-13	405	--	--	--	--	--	--	--	60	0
434605112342101	77-09-13	--	--	--	--	--	--	--	--	130	0
434600112360101	77-09-13	--	--	--	--	--	--	--	--	140	0
434657112282201	77-09-13	--	--	--	--	--	--	--	--	250	37
434407112285101	77-09-13	--	--	--	--	--	--	--	--	170	30
434941112454201	77-09-07	--	--	--	298	8.0	14.0	--	--	140	13
435215112394201	77-09-07	--	--	--	357	8.0	16.0	--	--	160	8
434952112411301	77-09-05	--	--	--	410	8.0	12.0	--	--	190	33
434856112400001	77-09-07	--	--	--	353	8.2	14.5	--	--	150	15
434820112373001	77-09-07	--	--	--	337	8.0	12.5	--	--	140	3
JEROME COUNTY--Continued											
423814114314001	77-08-19	--	--	--	726	7.3	17.0	--	--	260	0
KOOTENAI COUNTY--Continued											
474214116510201	77-08-03	153	>60	>5.0	109	6.6	14.5	<1	<1	51	11
474246116534101	77-07-20	231	>60	700	123	8.2	15.0	<1	<1	59	7
474230116544901	77-07-20	275	5	1400	83	7.2	15.5	<1	<1	35	3
474210117004001	77-07-21	152	>60	>3000	82	6.8	10.0	<1	<1	37	3
474145117000701	77-08-01	110	20	E10	83	6.6	12.0	<1	<1	35	7
474529116452601	77-07-28	221	15	E10	63	6.5	9.0	<1	<1	26	0
474755116521901	77-07-12	277	>60	>1000	181	8.1	8.0	<1	<1	90	0
474715116460701	77-07-27	232	30	E25	180	6.7	14.0	<1	<1	81	0
474623116483101	77-07-13	348	>60	>100	248	8.0	7.0	<1	<1	120	0
474558116484201	77-07-26	343	>60	E20	144	8.0	9.5	<1	<1	71	0
474549116471701	77-07-27	305	10	E20	320	7.6	8.0	<1	<1	180	24
474444116525701	77-07-21	284	>60	>1000	335	7.8	9.0	<1	<1	190	30
474517116492801	77-08-04	357	>60	>200	301	8.2	9.5	<1	<1	170	0
474501116471701	77-07-12	330	>60	>100	121	8.1	11.0	<1	<1	57	0
474526116462201	77-07-26	217	20	E20	97	7.1	10.0	<1	<1	48	2

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	HYDROXIDE ION (MG/L AS OH)	ALKALINITY, TOTAL (MG/L AS CACO3)
CASSIA COUNTY--Continued											
420723113243101	77-04-26	60	13	32	25	1.0	5.6	140	1	--	120
420706113245101	77-04-26	55	11	27	24	.9	6.0	140	1	--	120
420628113280001	77-04-26	34	7.4	19	25	.8	5.1	95	0	--	78
420627113222801	76-10-06	35	.1	370	86	17	32	59	0	--	48
420534113215001	76-10-06	210	.3	1200	79	23	120	69	--	--	57
CLARK COUNTY--Continued											
442838111401901	77-09-08	44	19	1.8	2	.1	1.8	190	0	--	160
FREMONT COUNTY--Continued											
435410111343001	77-07-23	--	--	--	--	--	--	--	--	--	--
435328111355201	77-06-16	25	5.9	69	61	3.2	6.9	200	0	--	164
435335111351601	77-06-16	--	--	--	--	--	--	--	--	--	--
435653111314301	77-07-22	--	--	--	--	--	--	--	--	--	--
435535111332601	77-07-23	--	--	--	--	--	--	--	--	--	--
440526111273101	77-07-22	--	--	--	--	--	--	--	--	--	--
	77-09-06	1.4	.1	37	93	8.1	1.6	87	0	--	71
440617111205600	77-09-21	20	3.7	24	44	1.3	1.2	120	0	--	98
441219111145901	77-07-22	--	--	--	--	--	--	--	--	--	--
	77-09-21	6.0	1.4	14	57	1.3	1.4	48	0	--	39
440744111103500	77-09-21	38	7.1	7.4	11	.3	1.5	150	0	--	120
441734111271901	77-09-08	22	4.1	4.7	12	.2	1.2	70	0	--	57
442709111213501	77-09-08	11	2.7	4.3	19	.3	1.6	53	0	--	43
443003111151501	77-07-22	--	--	--	--	--	--	--	--	--	--
443745111195401	77-09-08	50	15	1.7	2	.1	1.0	220	0	--	180
GOODING COUNTY--Continued											
424237114450701	77-08-19	47	22	23	19	.7	4.0	230	0	--	190
JEFFERSON COUNTY--Continued											
434909112400401	77-09-07	5.4	12	14	31	.8	3.5	95	5	0	86
434854112322101	77-09-07	39	14	25	25	.9	5.4	150	0	0	123
433834111412401	77-06-18	--	--	--	--	--	--	--	--	--	--
434311112383001	77-09-13	13	6.2	14	33	.8	4.4	95	0	--	79
434605112342101	77-09-13	34	11	16	21	.6	3.5	160	0	--	132
434600112360101	77-09-13	34	12	14	19	.6	3.6	170	0	--	140
434657112282201	77-09-13	64	22	44	27	1.2	5.9	260	0	--	213
434407112285101	77-09-13	45	13	19	20	.7	3.6	170	0	--	140
434941112454201	77-09-07	33	15	6.9	9	.3	2.7	160	0	0	131
435215112394201	77-09-07	39	14	15	17	.5	3.6	180	0	0	148
434952112411301	77-09-05	49	16	12	12	.4	3.8	190	0	0	156
434856112400001	77-09-07	37	15	15	17	.5	3.5	170	0	0	139
434820112373001	77-09-07	29	17	13	16	.5	9.1	170	0	0	139
JEROME COUNTY--Continued											
423814114314001	77-06-19	68	22	60	33	1.6	6.4	330	0	--	270
KOOTENAI COUNTY--Continued											
474214116510201	77-08-03	14	4.0	2.5	9	.2	1.2	49	0	--	40
474246116534101	77-07-20	17	4.0	2.2	7	.1	1.3	63	0	--	52
474230116544901	77-07-20	9.9	2.5	1.8	10	.1	.9	39	0	--	32
474210117004001	77-07-21	10	2.8	2.1	11	.2	.8	41	0	--	34
474145117000701	77-08-01	10	2.5	2.0	11	.1	.8	34	0	--	28
474529116452601	77-07-28	7.3	1.8	1.8	13	.2	.8	34	0	--	28
474755116521901	77-07-12	24	7.3	2.4	5	.1	1.3	110	0	--	90
474715116460701	77-07-27	20	7.5	7.0	15	.3	2.5	110	0	--	90
474623116483101	77-07-13	30	11	2.3	4	.1	1.5	160	0	--	131
474558116484201	77-07-26	20	5.1	2.3	6	.1	1.4	88	0	--	72
474549116471701	77-07-27	36	22	3.1	4	.1	2.1	190	0	--	156
474444116525701	77-07-21	38	22	2.7	3	.1	2.2	190	0	--	160
474517116492801	77-08-04	42	17	3.5	4	.1	2.1	210	0	--	172
474501116471701	77-07-12	18	3.0	1.9	7	.1	1.1	88	0	--	72
474526116462201	77-07-26	13	3.7	1.8	7	.1	1.0	56	0	--	46

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
CASSIA COUNTY--Continued										
420723113243101	77-04-26	.1	27	85	.5	--	--	49	342	--
420706113245101	77-04-26	.1	20	71	.5	--	--	46	308	--
420628113280001	77-04-26	.8	13	47	.4	--	--	48	223	--
420627113222801	76-10-06	119	46	57	10	--	--	150	729	1.70
420534113215001	76-10-06	--	47	12000	5.3	--	--	130	13700	18.6
CLARK COUNTY--Continued										
442838111401901	77-09-08	19	31	.9	.5	--	--	13	206	.28
FREMONT COUNTY--Continued										
435410111343001	77-07-23	--	--	--	--	--	--	--	--	--
435328111355201	77-06-16	6.0	26	22	5.7	.1	.00	64	327	.45
435335111351601	77-06-16	--	--	--	--	--	--	--	--	--
435653111314301	77-07-22	--	--	--	--	--	--	--	--	--
435535111332601	77-07-23	--	--	--	--	--	--	--	--	--
440526111273101	77-07-22	--	--	--	--	--	--	--	--	--
	77-09-06	1.8	3.9	3.3	2.4	--	--	22	116	.16
440617111205600	77-09-21	30	4.9	5.2	1.4	--	--	39	163	.22
441219111145901	77-07-22	--	--	--	--	--	--	--	--	--
	77-09-21	11	1.9	.6	2.2	--	--	32	84	--
440744111103500	77-09-21	54	1.9	1.8	1.4	--	--	43	177	.24
441734111271901	77-09-08	7.1	5.7	2.2	.2	--	--	30	106	.14
442709111213501	77-09-08	17	3.0	1.0	.5	--	--	30	81	.11
443003111151501	77-07-22	--	--	--	--	--	--	--	--	--
443745111195401	77-09-08	44	4.4	1.6	.1	--	--	14	200	.27
GOODING COUNTY--Continued										
424237114450701	77-08-19	18	43	21	.9	--	--	40	320	.44
JEFFERSON COUNTY--Continued										
434909112400401	77-09-07	.3	.1	8.6	.4	.0	--	1.0	97	--
434854112322101	77-09-07	3.0	29	43	.8	.2	--	38	269	--
433834111412401	77-06-18	--	--	--	--	--	--	--	--	--
434311112383001	77-09-13	--	1.3	12	.0	--	--	--	--	--
434605112342101	77-09-13	--	23	14	.4	--	--	--	--	--
434600112360101	77-09-13	--	21	11	.5	--	--	--	--	--
434657112282201	77-09-13	--	39	68	.2	--	--	--	--	--
434407112285101	77-09-13	--	21	34	.4	--	--	--	--	--
434941112454201	77-09-07	2.6	16	7.0	.2	.0	--	25	185	--
435215112394201	77-09-07	2.9	29	13	.5	.1	--	34	237	--
434952112411301	77-09-05	3.0	34	21	.2	.1	--	27	257	--
434856112400001	77-09-07	1.7	29	16	.5	.0	--	31	231	--
434820112373001	77-09-07	2.7	26	7.9	.2	.1	--	25	212	--
JEROME COUNTY--Continued										
423814114314001	77-08-19	26	65	39	.5	--	--	39	475	.65
KOOTENAI COUNTY--Continued										
474214116510201	77-08-03	20	6.2	1.6	.0	--	--	13	69	.10
474246116534101	77-07-20	.6	5.2	.9	.0	--	--	14	79	.11
474230116544901	77-07-20	3.9	4.9	.3	.0	--	--	13	54	.07
474210117004001	77-07-21	10	4.6	.6	.0	--	--	11	54	.07
474145117000701	77-08-01	14	9.2	.6	.1	--	--	10	54	.07
474529116452601	77-07-28	17	2.2	.6	.1	--	--	10	42	.06
474755116521901	77-07-12	1.4	6.8	.6	.0	--	--	13	110	.15
474715116460701	77-07-27	35	9.4	.8	.2	--	--	52	155	.21
474623116483101	77-07-13	2.6	4.0	1.2	.0	--	--	11	140	.19
474558116484201	77-07-26	1.4	11	1.5	.1	--	--	11	98	.13
474549116471701	77-07-27	7.6	17	.8	.1	--	--	9.9	193	.26
474444116525701	77-07-21	4.8	19	1.1	.1	--	--	11	197	.26
474517116492801	77-08-04	2.1	11	2.5	.1	--	--	12	203	.26
474501116471701	77-07-12	1.1	2.9	.5	.0	--	--	11	82	.11
474526116462201	77-07-26	7.1	2.9	.7	.1	--	--	11	63	.09

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
CASSIA COUNTY--Continued				
420723113243101	77-04-26	.02	.03	--
420706113245101	77-04-26	.35	.03	--
420628113280001	77-04-26	.63	.06	--
420627113222801	76-10-06	.03	.01	--
420534113215001	76-10-06	.03	.01	--
CLARK COUNTY--Continued				
442838111401901	77-09-08	.11	.01	--
FREMONT COUNTY--Continued				
435410111343001	77-07-23	--	--	--
435328111355201	77-06-16	.83	.02	--
435335111351601	77-06-16	--	--	--
435653111314301	77-07-22	--	--	--
435535111332601	77-07-23	--	--	--
440526111273101	77-07-22	--	--	--
	77-09-06	.26	.04	--
440617111205600	77-09-21	.85	.03	--
441219111145901	77-07-22	--	--	--
	77-09-21	.21	.11	--
440744111103500	77-09-21	.15	.01	--
441734111271901	77-09-08	.38	.04	--
442709111213501	77-09-08	.21	.02	--
443003111151501	77-07-22	--	--	--
443745111195401	77-09-08	.74	.00	--
GOODING COUNTY--Continued				
424237114450701	77-08-19	1.2	.06	--
JEFFERSON COUNTY--Continued				
434909112400401	77-09-07	--	--	--
434854112322101	77-09-07	--	--	--
433834111412401	77-06-18	--	--	--
434311112383001	77-09-13	--	--	--
434605112342101	77-09-13	--	--	--
434600112360101	77-09-13	--	--	--
434657112282201	77-09-13	--	--	--
434407112285101	77-09-13	--	--	--
434941112454201	77-09-07	--	--	--
435215112394201	77-09-07	--	--	--
434952112411301	77-09-05	--	--	--
434856112400001	77-09-07	--	--	--
434820112373001	77-09-07	--	--	--
JEROME COUNTY--Continued				
423814114314001	77-08-19	2.7	.03	--
KOOTENAI COUNTY--Continued				
474214116510201	77-08-03	.57	.01	--
474246116534101	77-07-20	.86	.01	--
474230116544901	77-07-20	.26	.01	--
474210117004001	77-07-21	.54	.01	--
474145117000701	77-08-01	.34	.04	--
474529116452601	77-07-28	.17	.00	--
474755116521901	77-07-12	--	.00	--
474715116460701	77-07-27	.35	.09	--
474623116483101	77-07-13	--	.01	--
474558116484201	77-07-26	.61	.00	--
474549116471701	77-07-27	2.0	.00	--
474444116525701	77-07-21	1.6	.01	--
474517116492801	77-08-04	2.1	.01	--
474501116471701	77-07-12	--	.02	--
474526116462201	77-07-26	.34	.00	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	IRON, DISSOLVED (UG/L AS FE)	IRON (UG/L AS FE)
CASSIA COUNTY--Continued											
420723113243101	77-04-26	--	--	--	--	--	--	--	--	--	--
420706113245101	77-04-26	--	--	--	--	--	--	--	--	--	--
420628113280001	77-04-26	--	--	--	--	--	--	--	--	--	--
420627113222801	76-10-06	--	2	--	160	--	--	--	--	--	--
420534113215001	76-10-06	--	0	--	--	--	--	--	--	--	--
CLARK COUNTY--Continued											
442838111401901	77-09-08	--	1	--	10	--	--	--	--	20	--
FREMONT COUNTY--Continued											
435410111343001	77-07-23	--	--	--	--	--	--	--	--	--	--
435328111355201	77-06-16	--	12	0	150	--	--	--	--	--	30
435335111351601	77-06-16	--	--	--	--	--	--	--	--	--	--
435653111314301	77-07-22	--	--	--	--	--	--	--	--	--	--
435535111332601	77-07-23	--	--	--	--	--	--	--	--	--	--
440526111273101	77-07-22	--	--	--	--	--	--	--	--	--	--
	77-09-06	--	13	--	40	--	--	--	--	40	--
440617111205600	77-09-21	--	8	--	40	--	--	--	--	60	--
441219111145901	77-07-22	--	--	--	--	--	--	--	--	--	--
	77-09-21	--	--	--	--	--	--	--	--	--	--
440744111103500	77-09-21	--	1	--	4	--	--	--	--	20	--
441734111271901	77-09-08	--	--	--	10	--	--	--	--	--	--
442709111213501	77-09-08	--	--	--	9	--	--	--	--	--	--
443003111151501	77-07-22	--	--	--	--	--	--	--	--	--	--
443745111195401	77-09-08	--	--	--	--	--	--	--	--	--	--
GOODING COUNTY--Continued											
424237114450701	77-08-19	--	2	--	80	8	--	--	--	50	--
JEFFERSON COUNTY--Continued											
434909112400401	77-09-07	10	--	--	30	0	0	0	0	10	--
434854112322101	77-09-07	10	--	--	50	0	0	0	0	60	--
433834111412401	77-06-18	--	--	--	--	--	--	--	--	--	--
434311112383001	77-09-13	--	--	--	--	--	--	--	--	--	--
434605112342101	77-09-13	--	--	--	--	--	--	--	--	--	--
434600112360101	77-09-13	--	--	--	--	--	--	--	--	--	--
434657112282201	77-09-13	--	--	--	--	--	--	--	--	--	--
434407112285101	77-09-13	--	--	--	--	--	--	--	--	--	--
434941112454201	77-09-07	10	--	--	10	20	0	0	10	10	--
435215112394201	77-09-07	10	--	--	40	0	0	0	0	0	--
434952112411301	77-09-05	10	--	--	20	0	10	5	10	10	--
434856112400001	77-09-07	10	--	--	30	0	0	0	0	30	--
434820112373001	77-09-07	0	--	--	30	0	20	0	20	20	--
JEROME COUNTY--Continued											
423814114314001	77-08-19	--	2	--	140	8	--	--	--	30	--
KOOTENAI COUNTY--Continued											
474214116510201	77-08-03	--	--	--	--	--	--	--	--	10	--
474246116534101	77-07-20	--	--	--	--	--	--	--	--	10	--
474230116544901	77-07-20	--	--	--	--	--	--	--	--	10	--
474210117004001	77-07-21	--	--	--	--	--	--	--	--	10	--
474145117000701	77-08-01	--	--	--	--	--	--	--	--	60	--
474529116452601	77-07-28	--	--	--	--	--	--	--	--	10	--
474755116521901	77-07-12	--	--	--	--	--	--	--	--	10	--
474715116460701	77-07-27	--	--	--	--	--	--	--	--	10	--
474623116483101	77-07-13	--	--	--	--	--	--	--	--	10	--
474558116484201	77-07-26	--	--	--	--	--	--	--	--	10	--
474549116471701	77-07-27	--	--	--	--	--	--	--	--	10	--
474444116525701	77-07-21	--	--	--	--	--	--	--	--	10	--
474517116492801	77-08-04	--	--	--	--	--	--	--	--	0	--
474501116471701	77-07-12	--	--	--	--	--	--	--	--	10	--
474526116462201	77-07-26	--	--	--	--	--	--	--	--	20	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)
					CASSIA COUNTY--Continued						
420723113243101	77-04-26	--	--	--	--	--	--	--	--	--	--
420706113245101	77-04-26	--	--	--	--	--	--	--	--	--	--
420628113280001	77-04-26	--	--	--	--	--	--	--	--	--	--
420627113222801	76-10-06	--	1100	--	--	.0	--	730	--	--	--
420534113215001	76-10-06	--	3500	--	--	.0	--	3400	--	--	--
					CLARK COUNTY--Continued						
442838111401901	77-09-08	--	--	9	0	--	--	--	--	10	--
					FREMONT COUNTY--Continued						
435410111343001	77-07-23	--	--	--	--	--	--	--	--	--	--
435328111355201	77-06-16	--	--	140	0	--	.4	--	100	--	--
435335111351601	77-06-16	--	--	--	--	--	--	--	--	--	--
435653111314301	77-07-22	--	--	--	--	--	--	--	--	--	--
435535111332601	77-07-23	--	--	--	--	--	--	--	--	--	--
440526111273101	77-07-22	--	--	--	--	--	--	--	--	--	--
	77-09-06	--	--	50	10	--	--	--	--	10	--
440617111205600	77-09-21	--	--	80	0	--	--	--	--	0	--
441219111145901	77-07-22	--	--	--	--	--	--	--	--	--	--
	77-09-21	--	--	--	--	--	--	--	--	--	--
440744111103500	77-09-21	--	--	20	0	--	--	--	--	0	--
441734111271901	77-09-08	--	--	--	--	--	--	--	--	--	--
442709111213501	77-09-08	--	--	--	--	--	--	--	--	--	--
443003111151501	77-07-22	--	--	--	--	--	--	--	--	--	--
443745111195401	77-09-08	--	--	--	--	--	--	--	--	--	--
					GOODING COUNTY--Continued						
424237114450701	77-08-19	130	--	40	--	--	1.7	--	--	--	--
					JEFFERSON COUNTY--Continued						
434909112400401	77-09-07	--	--	--	10	--	--	--	20	--	--
434854112322101	77-09-07	--	--	--	0	--	--	--	190	--	--
433834111412401	77-06-18	--	--	--	--	--	--	--	--	--	--
434311112383001	77-09-13	--	--	--	--	--	--	--	--	--	--
434605112342101	77-09-13	--	--	--	--	--	--	--	--	--	--
434600112360101	77-09-13	--	--	--	--	--	--	--	--	--	--
434657112282201	77-09-13	--	--	--	--	--	--	--	--	--	--
434407112285101	77-09-13	--	--	--	--	--	--	--	--	--	--
434941112454201	77-09-07	--	--	--	0	--	--	--	140	--	--
435215112394201	77-09-07	--	--	--	0	--	--	--	190	--	--
434952112411301	77-09-05	--	--	--	0	--	--	--	220	--	--
434856112400001	77-09-07	--	--	--	0	--	--	--	170	--	--
434820112373001	77-09-07	--	--	--	290	--	--	--	160	--	--
					JEROME COUNTY--Continued						
423814114314001	77-08-19	56	--	40	--	--	.0	--	--	--	--
					KOOTENAI COUNTY--Continued						
474214116510201	77-08-03	--	--	--	--	--	--	--	--	--	--
474246116534101	77-07-20	--	--	--	--	--	--	--	--	--	--
474230116544901	77-07-20	--	--	--	--	--	--	--	--	--	--
474210117004001	77-07-21	--	--	--	--	--	--	--	--	--	--
474145117000701	77-08-01	--	--	--	--	--	--	--	--	--	--
474529116452601	77-07-28	--	--	--	--	--	--	--	--	--	--
474755116521901	77-07-12	--	--	--	--	--	--	--	--	--	--
474715116460701	77-07-27	--	--	--	--	--	--	--	--	--	--
474623116483101	77-07-13	--	--	--	--	--	--	--	--	--	--
474558116484201	77-07-26	--	--	--	--	--	--	--	--	--	--
474549116471701	77-07-27	--	--	--	--	--	--	--	--	--	--
474444116525701	77-07-21	--	--	--	--	--	--	--	--	--	--
474517116492801	77-08-04	--	--	--	--	--	--	--	--	--	--
474501116471701	77-07-12	--	--	--	--	--	--	--	--	--	--
474526116462201	77-07-26	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SAMP-LING DEPTH (FT)
				KOOTENAI COUNTY--Continued					
474004116495001	47 40 04	116 49 50	01	51N 04W 27DDB1	055	77-07-28	0825	266.73	--
474409116513701	47 44 09	116 51 37	01	51N 04W 29DBB1	055	77-07-12	1115	238.52	--
474332116472201	47 43 32	116 47 22	01	51N 04W 35ADB1	055	77-07-26	0935	202.21	--
474639116551001	47 46 39	116 55 10	01	51N 05W 11DDB1	055	77-07-13	1250	217.13	--
474715116535501	47 47 15	116 53 55	01	51N 05W 12ABA1	055	77-07-13	1400	222.84	--
474459117004001	47 44 59	117 00 40	01	51N 05W 19CAD1	055	77-07-21	0945	149.90	--
474416116535401	47 44 16	116 53 54	01	51N 05W 25DAB1	055	77-07-20	1455	228.40	--
474432116555301	47 44 32	116 55 53	01	51N 05W 26BCA1	055	77-07-20	1220	254.07	--
474439116572601	47 44 39	116 57 26	01	51N 05W 27BBB1	055	77-07-21	0830	157.86	--
474325117002801	47 43 25	117 00 28	01	51N 05W 31ACA1	055	77-07-21	1050	129.95	--
474330116554501	47 43 30	116 55 45	01	51N 05W 35BDC1	055	77-07-20	1320	218.40	--
475154116445001	47 51 54	116 44 50	01	52N 03W 07DAC1	055	77-08-04	1515	42.20	--
475146116445401	47 51 46	116 44 54	01	52N 03W 07DCA1	055	77-08-02	1515	45.90	--
475044116445601	47 50 44	116 44 56	01	52N 03W 19ABA1	055	77-08-02	1640	143.34	--
475159116484701	47 51 59	116 48 47	01	52N 04W 10DAB1	055	77-08-02	1325	327.30	--
475047116474401	47 50 47	116 47 44	01	52N 04W 14DCD1	055	77-08-03	1150	217.26	--
475048116510101	47 50 48	116 51 01	01	52N 04W 17DDD1	055	77-08-09	1015	272.09	--
475002116521101	47 50 02	116 52 11	01	52N 04W 20CCB1	055	77-07-14	1015	219.33	--
474906116484801	47 49 06	116 48 48	01	52N 04W 27DCD1	055	77-07-14	0910	258.23	--
474828116522601	47 48 28	116 52 26	01	52N 04W 31DAB1	055	77-07-13	1510	198.78	--
474851116513001	47 48 51	116 51 30	01	52N 04W 32ABC1	055	77-07-13	1605	216.64	--
474820116473901	47 48 20	116 47 39	01	52N 04W 35DCB1	055	77-07-12	1440	32.10	--
475716116372901	47 57 16	116 37 29	01	53N 02W 07CAA1	055	77-07-19	1145	381.36	--
475534116364801	47 55 34	116 36 48	01	53N 02W 19ADD1	055	77-07-19	1305	12.80	--
475838116412101	47 58 38	116 41 21	01	53N 03W 03BAB1	055	77-07-19	1030	351.74	--
475657116423601	47 56 57	116 42 36	01	53N 03W 09CDD1	055	77-08-02	0845	337.22	--
475514116424801	47 55 14	116 42 48	01	53N 03W 21CDC1	055	77-07-27	1350	156.98	--
475532116405501	47 55 32	116 40 55	01	53N 03W 22DAB1	055	77-07-14	1500	191.50	--
475754116523501	47 57 54	116 52 35	01	53N 04W 06DDB2	055	77-07-19	1430	302.25	--
475557116473801	47 55 57	116 47 38	01	53N 04W 22CDD1	055	77-08-02	1125	427.23	--
475558116464701	47 55 58	116 46 47	01	53N 04W 24BBA1	055	77-08-02	1000	466.02	--
475345116505401	47 53 45	116 50 54	01	53N 04W 33CBB1	055	77-07-28	1640	415.05	--
475414116464601	47 54 14	116 46 46	01	53N 04W 36BBA1	055	77-07-27	1510	403.26	--
475847116340201	47 58 47	116 34 02	01	54N 02W 34CCB1	055	77-08-22	1540	131.32	--
				MADISON COUNTY					
433815111351501	43 38 15	111 35 15	01	04N 41E 35ADB1S	065	77-06-18	1630	--	--
434649111470001	43 46 49	111 47 00	01	05N 40E 08BCC1	065	77-06-15	1430	--	--
434638111414101	43 46 38	111 41 41	01	05N 40E 12CAA1	065	77-07-23	1215	--	--
434729111260801	43 47 29	111 26 08	00	05N 43E 06BCA1S	065	77-07-24	1100	--	--
					065	77-09-06	1400	--	--
435100111404401	43 51 00	111 40 44	01	06N 40E 13ADA1	065	77-07-15	0900	--	62
434811111463901	43 48 11	111 46 39	01	06N 40E 31DAA1	065	77-07-23	1010	--	--
434817111423501	43 48 17	111 42 35	01	06N 40E 35BDD1	065	77-06-16	0930	--	--
435154111362701	43 51 54	111 36 27	01	06N 41E 10DBB1	065	77-06-16	1230	--	--
435129111353401	43 51 29	111 35 34	01	06N 41E 11CDB1	065	77-06-17	1015	--	--
435043111351601	43 50 43	111 35 16	01	06N 41E 14CAD1	065	77-07-23	1715	--	--
433835111394501	43 38 35	111 39 45	01	06N 41E 31AAC1	065	77-07-23	1335	--	--
				OWYHEE COUNTY					
423720116325701	42 37 20	116 32 57	01	09S 02W 26CCC1S	073	77-05-18	2100	--	--
422000115390001	42 20 11	115 38 39	01	12S 07E 33C1S	073	77-07-27	1530	--	--
421815115560501	42 18 13	115 55 58	01	13S 04E 12CDD1	073	77-07-06	1240	--	--
421113116063401	42 11 13	116 05 34	01	14S 03E 28BAA1	073	77-09-15	1200	--	--
421450115223001	42 14 45	115 22 35	01	14S 09E 02BAA1	073	77-05-18	1540	--	--
420421115111801	42 04 21	115 11 18	01	15S 11E 32DDB1	073	77-09-15	1500	--	--
420139115214301	42 01 32	115 21 43	01	16S 09E 24BB1S	073	77-05-18	1430	--	--
				POWER COUNTY					
424728112573301	42 47 28	112 57 33	01	07S 30E 28BBA1	077	77-08-17	1300	--	--
				TETON COUNTY					
433420111122501	43 34 20	111 12 25	01	03N 44E 24ACD1S	081	77-07-12	1800	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (GPM)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS, DISSOLVED (MG/L AS CACO3)	HARDNESS, NONCARBONATE, DIS. (MG/L CACO3)
KOOTENAI COUNTY--Continued											
474004116495001	77-07-28	310	>60	>500	257	7.9	8.0	<1	<1	130	9
474409116513701	77-07-12	268	>60	>1000	262	8.1	10.0	<1	<1	150	15
474332116472201	77-07-26	228	15	E15	327	8.1	10.0	<1	<1	180	15
474639116551001	77-07-13	264	>60	>100	128	8.3	7.0	<1	<1	65	0
474715116535501	77-07-13	>250	>60	>1000	285	7.7	12.0	<1	<1	150	0
474459117004001	77-07-21	208	>60	>500	337	7.6	10.0	<1	<1	170	0
474416116535401	77-07-20	290	>60	>1000	269	8.0	8.5	<1	<1	140	1
474432116555301	77-07-20	274	>60	>1000	272	7.9	8.5	<1	<1	140	1
474439116572601	77-07-21	184	<60	E10	264	7.9	9.0	<1	<1	150	2
474325117002801	77-07-21	189	>60	>1500	276	8.0	8.5	<1	<1	160	12
474330116554501	77-07-20	242	>60	>1000	248	8.0	15.0	<1	<1	130	17
475154116445001	77-08-04	117	>60	>5.0	186	7.8	8.5	<1	<1	100	6
475146116445401	77-08-02	270	>60	>200	164	7.0	9.0	83	81	83	1
475044116445601	77-08-02	335	10	E5.0	89	6.5	9.5	<1	<1	36	0
475159116484701	77-08-02	432	10	E2.0	304	7.6	14.0	<1	<1	160	0
475047116474401	77-08-03	365	>60	E10	199	7.2	10.0	<1	<1	96	0
475048116510101	77-08-09	350	>60	150	162	8.1	10.5	<1	<1	85	3
475002116521101	77-07-14	500	>15	<15	65	6.9	13.5	<1	<1	21	0
474906116484801	77-07-14	306	>60	>20	297	7.9	9.5	<1	<1	170	9
474828116522601	77-07-13	220	>60	E30	187	7.7	8.5	<1	<1	94	0
474851116513001	77-07-13	234	>60	>1000	232	7.8	8.5	<1	<1	120	0
474820116473901	77-07-12	321	>60	>1000	495	7.9	11.5	<1	<1	270	0
475716116372901	77-07-19	404	15	E10	273	7.8	10.0	<1	<1	140	1
475534116364801	77-07-19	129	15	>8.0	274	7.8	10.0	<1	<1	130	0
475838116412101	77-07-19	369	20	>5.0	278	8.0	11.0	<1	<1	150	2
475657116423601	77-08-02	357	>60	70	297	7.8	8.0	84	<1	160	20
475514116424801	77-07-27	198	20	E20	374	7.3	8.5	<1	<1	210	4
475532116405501	77-07-14	410	>60	>20	402	7.9	12.0	<1	<1	200	28
475754116523501	77-07-19	328	5	>500	53	6.7	13.0	81	<1	21	0
475557116473801	77-08-02	441	20	E10	315	7.6	9.5	<1	<1	170	6
475558116464701	77-08-02	480	>60	>500	262	7.8	8.0	<1	<1	140	7
475345116505401	77-07-26	>420	20	E20	302	7.7	8.0	<1	<1	170	22
475414116464601	77-07-27	426	>60	E20	199	7.6	7.0	<1	<1	92	2
475847116340201	77-08-22	144	10	>5.0	229	7.3	11.5	<1	<1	130	0
MADISON COUNTY--Continued											
433815111351501	77-06-18	--	--	--	101	--	11.5	--	--	39	0
434649111470001	77-06-15	--	--	--	344	7.6	26.0	--	--	130	0
434638111414101	77-07-23	--	--	--	300	7.5	20.5	--	--	--	--
434729111260801	77-07-24	--	--	--	800	7.1	39.0	--	--	--	--
	77-09-06	--	--	--	790	6.7	41.0	--	--	450	320
435100111404401	77-07-15	--	--	--	340	7.1	9.5	--	--	180	0
434811111463901	77-07-23	--	--	--	350	7.8	16.5	--	--	--	--
434817111423501	77-06-16	--	--	--	415	7.7	13.0	--	--	200	28
435154111362701	77-06-16	--	--	--	470	7.6	26.5	--	--	110	0
435129111353401	77-06-17	--	--	--	435	7.7	21.5	--	--	--	--
435043111351801	77-07-23	--	--	--	420	7.6	19.0	--	--	--	--
433835111394501	77-07-23	--	--	--	320	7.6	14.5	--	--	--	--
OWYHEE COUNTY--Continued											
423720116325701	77-05-16	--	--	--	55	10.1	7.0	--	--	--	--
422000115390001	77-07-27	--	--	--	--	--	69.0	--	--	--	--
421815115560501	77-07-06	--	--	--	80	7.7	11.0	--	--	--	--
421113116063401	77-09-16	--	--	--	246	7.3	13.5	--	--	78	2
421450115223001	77-05-18	--	--	--	375	8.7	25.0	--	--	--	--
420421115111801	77-09-15	100	--	--	443	7.4	18.5	--	--	99	0
420139115214301	77-05-18	--	--	--	120	9.3	51.0	--	--	--	--
POWER COUNTY--Continued											
424728112573301	77-08-17	--	--	--	1139	7.6	13.5	--	--	400	180
TETON COUNTY--Continued											
433420111122501	77-07-12	--	--	--	325	7.1	10.0	--	--	160	16

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	HYDROXIDE ION (MG/L AS OH)	ALKALINITY, TOTAL (MG/L AS CACO3)
KOOTENAI COUNTY--Continued											
474004116495001	77-07-28	28	15	3.1	5	.1	2.0	150	0	--	120
474409116513701	77-07-12	29	18	2.7	4	.1	1.8	160	0	--	130
474332116472201	77-07-26	37	21	3.6	4	.1	2.1	200	0	--	160
474639116551001	77-07-13	19	4.3	2.1	6	.1	1.0	83	0	--	68
474715116535501	77-07-13	34	16	3.4	5	.1	1.7	200	0	--	164
474459117004001	77-07-21	53	8.9	4.4	5	.1	2.0	210	0	--	170
474416116535401	77-07-20	31	15	2.7	4	.1	1.8	170	0	--	139
474432116555301	77-07-20	32	15	3.3	5	.1	1.7	170	0	--	139
474439116572601	77-07-21	[illegible]	16	3.2	4	.1	1.8	180	0	--	148
474325117002801	77-07-21	[illegible]	18	2.9	4	.1	1.9	180	0	--	148
474330116554501	77-07-20	28	15	2.1	3	.1	2.0	140	0	--	110
475154116445001	77-08-04	34	4.8	2.2	4	.1	2.0	120	0	--	98
475146116445401	77-08-02	26	4.3	2.5	6	.1	2.0	100	0	--	82
475044116445601	77-08-02	11	2.5	2.6	12	.2	1.5	51	0	--	42
475159116484701	77-08-02	42	13	6.8	8	.2	1.1	200	0	--	160
475047116474401	77-08-03	17	13	4.7	9	.2	1.4	140	0	--	115
475048116510101	77-08-09	23	6.8	2.6	6	.1	1.2	100	0	--	82
475002116521101	77-07-14	6.6	1.2	3.5	25	.3	.8	39	0	--	32
474406116484801	77-07-14	33	20	2.1	3	.1	2.5	190	0	--	160
474828116522601	77-07-13	26	7.1	2.4	5	.1	1.3	150	0	--	123
474851116513001	77-07-13	28	12	2.9	5	.1	1.5	160	0	--	131
474820116473901	77-07-12	50	36	3.4	3	.1	4.0	350	0	--	287
475716116372901	77-07-19	33	14	3.4	5	.1	1.6	170	0	--	139
475534116364801	77-07-19	39	8.7	7.8	11	.3	.9	170	0	--	139
475838116412101	77-07-19	35	16	3.7	5	.1	2.1	180	0	--	148
475657116423601	77-08-02	36	17	2.8	4	.1	2.3	170	0	--	140
475514116424801	77-07-27	54	18	2.5	3	.1	2.4	250	0	--	210
475532116405501	77-07-14	50	17	9.3	9	.3	.7	210	0	--	172
475754116523501	77-07-19	6.4	1.3	2.4	19	.2	1.0	29	0	--	24
475557116473801	77-08-02	35	20	2.5	3	.1	2.3	200	0	--	164
475558116464701	77-08-02	34	13	3.0	4	.1	1.6	160	0	--	130
475345116505401	77-07-28	36	19	3.4	4	.1	2.0	180	0	--	148
475414116464601	77-07-27	27	6.0	1.9	4	.1	1.2	110	0	--	90
475847116340201	77-08-22	36	10	2.8	4	.1	1.5	160	0	--	131
MADISON COUNTY--Continued											
433815111351501	77-06-18	11	2.7	4.2	18	.3	2.6	51	--	--	42
434649111470001	77-06-15	33	11	20	25	.8	3.9	170	0	--	140
434638111414101	77-07-23	--	--	--	--	--	--	--	--	--	--
434729111260801	77-07-24	--	--	--	--	--	--	--	--	--	--
	77-09-06	130	30	3.6	2	.1	3.9	160	0	--	130
435100111404401	77-07-15	50	13	11	12	.4	2.5	220	0	--	180
434811111463901	77-07-23	--	--	--	--	--	--	--	--	--	--
434817111423501	77-06-16	47	19	13	12	.4	2.6	210	0	--	172
435154111362701	77-06-16	31	7.6	70	56	2.9	8.5	220	0	--	180
435129111353401	77-06-17	--	--	--	--	--	--	--	--	--	--
435043111351801	77-07-23	--	--	--	--	--	--	--	--	--	--
433835111394501	77-07-23	--	--	--	--	--	--	--	--	--	--
OWYHEE COUNTY--Continued											
423720116325701	77-05-18	--	--	--	--	--	--	--	--	--	--
422000115390001	77-07-27	--	--	--	--	--	--	--	--	--	--
421815115560501	77-07-06	--	--	--	--	--	--	--	--	--	--
421113116063401	77-09-16	22	5.6	18	32	.9	2.9	93	0	--	76
421450115223001	77-05-18	--	--	--	--	--	--	--	--	--	--
420421115111801	77-09-15	29	6.4	55	52	2.4	7.6	200	0	--	160
420139115214301	77-05-18	--	--	--	--	--	--	--	--	--	--
POWER COUNTY--Continued											
424728112573301	77-08-17	95	40	73	28	1.6	8.7	270	0	--	220
TETON COUNTY--Continued											
433420111122501	77-07-12	49	10	22	22	.7	1.3	180	0	--	150

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
KOOTENAI COUNTY--Continued										
474004116495001	77-07-28	3.0	9.3	2.1	.1	--	--	12	153	.21
474409116513701	77-07-12	2.0	9.5	1.5	.0	--	--	12	153	.21
474332116472201	77-07-26	2.5	13	2.8	.0	--	--	11	202	.27
474639116551001	77-07-13	.7	3.4	.8	.0	--	--	12	83	.11
474715116535501	77-07-13	6.4	7.3	.6	.0	--	--	15	177	.24
474459117004001	77-07-21	8.4	2.9	1.6	.1	--	--	18	198	.27
474416116535401	77-07-20	2.7	8.8	.7	.0	--	--	11	159	.22
474432116555301	77-07-20	3.4	14	.5	.1	--	--	11	163	.22
474439116572601	77-07-21	3.6	15	.6	.1	--	--	11	170	.23
474325117002801	77-07-21	2.9	15	1.0	.1	--	--	11	179	--
474330116554501	77-07-20	2.2	8.2	1.5	.1	--	--	13	149	.20
475154116445001	77-08-04	3.0	3.9	1.0	.1	--	--	16	125	.17
475146116445401	77-08-02	16	3.7	.8	.1	--	--	16	110	.15
475044116445601	77-08-02	26	2.1	.9	.1	--	--	18	66	.09
475159116484701	77-08-02	8.0	11	.3	.5	--	--	11	185	.25
475047116474401	77-08-03	14	2.7	.5	.4	--	--	25	136	.18
475048116510101	77-08-09	1.3	4.4	.5	.1	--	--	14	103	.14
475002116521101	77-07-14	7.9	2.9	.3	.1	--	--	10	45	.06
474906116484801	77-07-14	3.8	10	.3	.1	--	--	10	172	.23
474828116522601	77-07-13	4.8	5.2	.6	.0	--	--	14	131	.18
474851116513001	77-07-13	4.1	12	.5	.1	--	--	12	148	.20
474820116473901	77-07-12	7.0	41	.5	.1	--	--	13	320	.44
475716116372901	77-07-19	4.3	13	.9	.1	--	--	8.0	159	.22
475534116364801	77-07-19	4.3	12	.5	.1	--	--	15	169	.23
475838116412101	77-07-19	2.9	7.7	.8	.1	--	--	16	172	.23
475657116423601	77-08-02	4.3	19	2.5	.1	--	--	7.9	175	.24
475514116424801	77-07-27	20	9.5	.9	.1	--	--	12	224	.30
475532116405501	77-07-14	4.2	23	8.8	.1	--	--	11	223	.30
475754116523501	77-07-19	9.3	1.4	.5	.0	--	--	14	43	.06
475557116473801	77-08-02	8.0	16	.7	.1	--	--	10	168	.25
475558116464701	77-08-02	4.1	15	.8	.1	--	--	9.5	157	.21
475345116505401	77-07-28	5.7	19	.8	.1	--	--	10	180	.24
475414116464601	77-07-27	4.4	3.4	.6	.1	--	--	16	112	.15
475847116340201	77-08-22	13	13	1.2	.1	--	--	11	156	.21
MADISON COUNTY--Continued										
433815111351501	77-06-18	--	5.7	2.5	.3	.0	.00	44	100	.14
434649111470001	77-06-15	6.8	12	12	1.7	.0	.00	50	231	.31
434638111414101	77-07-23	--	--	--	--	--	--	--	--	--
434729111260801	77-07-24	--	--	--	--	--	--	--	--	--
	77-09-06	51	320	1.4	1.5	--	--	26	596	.81
435100111404401	77-07-15	25	6.7	12	.2	--	--	28	232	--
434811111463901	77-07-23	--	--	--	--	--	--	--	--	--
434817111423501	77-06-16	6.7	13	21	.4	.1	.00	33	267	.36
435154111362701	77-06-16	8.8	26	25	4.5	.1	.00	80	366	.50
435129111353401	77-06-17	--	--	--	--	--	--	--	--	--
435043111351801	77-07-23	--	--	--	--	--	--	--	--	--
433835111394501	77-07-23	--	--	--	--	--	--	--	--	--
OWYHEE COUNTY--Continued										
423720116325701	77-05-18	--	--	--	--	--	--	--	--	--
422000115390001	77-07-27	--	--	--	--	--	--	--	--	--
421815115560501	77-07-06	--	--	--	--	--	--	--	--	--
421113116063401	77-09-16	7.5	12	19	.3	--	--	34	175	.24
421450115223001	77-05-18	--	--	--	--	--	--	--	--	--
420421115111801	77-09-15	13	28	20	.7	--	--	54	312	.42
420139115214301	77-05-18	--	--	--	--	--	--	--	--	--
POWER COUNTY--Continued										
424728112573301	77-08-17	11	110	170	.4	--	--	31	684	.93
TETON COUNTY--Continued										
433420111122501	77-07-12	23	5.2	45	.1	.1	.00	8.1	230	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
KOOTENAI COUNTY--Continued				
474004116495001	77-07-28	1.6	.02	--
474409116513701	77-07-12	--	.00	--
474332116472201	77-07-26	2.9	.00	--
474639116551001	77-07-13	--	.01	--
474715116535501	77-07-13	--	.01	--
474459117004001	77-07-21	.85	.01	--
474416116535401	77-07-20	1.0	.01	--
474432116555301	77-07-20	.27	.01	--
474439116572601	77-07-21	.37	.01	--
474325117002801	77-07-21	.92	.01	--
474730116554501	77-07-20	2.2	.01	--
475154116445001	77-08-04	.38	.02	--
475146116445401	77-08-02	1.2	.02	--
475044116445601	77-08-02	.37	.01	--
475159116484701	77-08-02	.05	.01	--
475047116474401	77-08-03	.01	.04	--
475048116510101	77-08-09	.26	.01	--
475002116521101	77-07-14	--	.00	--
474906116484801	77-07-14	--	.02	--
474828116522601	77-07-13	--	.00	--
474851116513001	77-07-13	--	.00	--
474820116473901	77-07-12	--	.03	--
475716116372901	77-07-19	.34	.01	--
475534116364801	77-07-19	.15	.01	--
475838116412101	77-07-19	.37	.01	--
475657116423601	77-08-02	.85	.00	--
475514116424801	77-07-27	.28	.00	--
475532116405501	77-07-14	--	.00	--
475754116523501	77-07-19	.33	.02	--
475557116473801	77-08-02	.64	.01	--
475558116464701	77-08-02	.34	.01	--
475345116505401	77-07-28	.21	.00	--
475414116464601	77-07-27	.40	.00	--
475847116340201	77-08-22	.32	.02	--
MADISON COUNTY--Continued				
433815111351501	77-06-18	.41	.04	--
434649111470001	77-06-15	.81	.01	--
434638111414101	77-07-23	--	--	--
434729111260801	77-07-24	--	--	--
	77-09-06	.10	.01	--
435100111404401	77-07-15	--	.07	--
434811111463901	77-07-23	--	--	--
434817111423501	77-06-16	3.2	.02	--
435154111362701	77-06-16	1.1	.01	--
435129111353401	77-06-17	--	--	--
435043111351801	77-07-23	--	--	--
433835111394501	77-07-23	--	--	--
OWYHEE COUNTY--Continued				
423720116325701	77-05-18	--	--	--
422000115390001	77-07-27	--	--	--
421815115560501	77-07-06	--	--	--
421113116063401	77-09-16	3.4	.05	--
421450115223001	77-05-18	--	--	--
420421115111801	77-09-15	2.9	.09	--
420139115214301	77-05-18	--	--	--
POWER COUNTY--Continued				
424728112573301	77-08-17	5.0	.07	--
TETON COUNTY--Continued				
433420111122501	77-07-12	--	.02	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	IRON, DISSOLVED (UG/L AS FE)	IRON (UG/L AS FE)
					KOOTENAI COUNTY--Continued						
474004116495001	77-07-28	--	--	--	--	--	--	--	--	0	--
474409116513701	77-07-12	--	--	--	--	--	--	--	--	10	--
474332116472201	77-07-26	--	--	--	--	--	--	--	--	10	--
474539116551001	77-07-13	--	--	--	--	--	--	--	--	10	--
474715116535501	77-07-13	--	--	--	--	--	--	--	--	10	--
474459117004001	77-07-21	--	--	--	--	--	--	--	--	10	--
474416116535401	77-07-20	--	--	--	--	--	--	--	--	10	--
474432116555301	77-07-20	--	--	--	--	--	--	--	--	10	--
474439116572601	77-07-21	--	--	--	--	--	--	--	--	10	--
474325117002801	77-07-21	--	--	--	--	--	--	--	--	30	--
474330116554501	77-07-20	--	--	--	--	--	--	--	--	10	--
475154116445001	77-08-04	--	--	--	--	--	--	--	--	40	--
475146116445401	77-08-02	--	--	--	--	--	--	--	--	10	--
475044116445601	77-08-02	--	--	--	--	--	--	--	--	250	--
475159116484701	77-08-02	--	--	--	--	--	--	--	--	10	--
475047116474401	77-08-03	--	--	--	--	--	--	--	--	2600	--
475048116510101	77-08-09	--	--	--	--	--	--	--	--	10	--
475002116521101	77-07-14	--	--	--	--	--	--	--	--	20	--
474906116484801	77-07-14	--	--	--	--	--	--	--	--	20	--
474828116522601	77-07-13	--	--	--	--	--	--	--	--	10	--
474851116513001	77-07-13	--	--	--	--	--	--	--	--	20	--
474820116473901	77-07-12	--	--	--	--	--	--	--	--	40	--
475716116372901	77-07-19	--	--	--	--	--	--	--	--	20	--
475534116364801	77-07-19	--	--	--	--	--	--	--	--	10	--
475838116412101	77-07-19	--	--	--	--	--	--	--	--	10	--
475657116423601	77-08-02	--	--	--	--	--	--	--	--	10	--
475514116424801	77-07-27	--	--	--	--	--	--	--	--	10	--
475532116405501	77-07-14	--	--	--	--	--	--	--	--	20	--
475754116523501	77-07-19	--	--	--	--	--	--	--	--	20	--
475557116473801	77-08-02	--	--	--	--	--	--	--	--	10	--
475554116464701	77-08-02	--	--	--	--	--	--	--	--	30	--
475345116505401	77-07-28	--	--	--	--	--	--	--	--	20	--
475414116464501	77-07-27	--	--	--	--	--	--	--	--	10	--
475847116340201	77-08-22	--	--	--	--	--	--	--	--	20	--
					MADISON COUNTY--Continued						
433815111351501	77-06-18	--	2	0	10	--	--	--	--	--	30
434649111470001	77-06-15	--	4	0	30	--	--	--	--	--	10
434634111414101	77-07-23	--	--	--	--	--	--	--	--	--	--
434724111260801	77-07-24	--	--	--	--	--	--	--	--	--	--
	77-09-06	--	1	--	20	--	--	--	--	--	--
435100111404401	77-07-15	--	--	--	40	--	--	--	--	--	--
434811111463901	77-07-23	--	--	--	--	--	--	--	--	--	--
434817111423501	77-06-16	--	2	0	20	--	--	--	--	--	10
435154111362701	77-06-16	--	11	0	130	--	--	--	--	--	20
435124111353401	77-06-17	--	--	--	--	--	--	--	--	--	--
435043111351801	77-07-23	--	--	--	--	--	--	--	--	--	--
433835111394501	77-07-23	--	--	--	--	--	--	--	--	--	--
					OWYHEE COUNTY--Continued						
423720116325701	77-05-18	--	--	--	--	--	--	--	--	--	--
421815115560501	77-07-06	--	--	--	--	--	--	--	--	--	--
421113116063401	77-09-16	--	2	--	50	10	--	--	--	40	--
421450115223001	77-05-18	--	--	--	--	--	--	--	--	--	--
420421115111401	77-09-15	--	6	--	140	0	--	--	--	50	--
420139115214301	77-05-18	--	--	--	--	--	--	--	--	--	--
					POWER COUNTY--Continued						
424728112573301	77-08-17	--	2	--	100	12	--	--	--	10	--
					TETON COUNTY--Continued						
433420111122501	77-07-12	--	0	0	20	--	--	--	--	20	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
					KOOTENAI COUNTY--Continued						
474004116495001	77-07-28	--	--	--	--	--	--	--	--	--	--
474409116513701	77-07-12	--	--	--	--	--	--	--	--	--	--
474332116472201	77-07-26	--	--	--	--	--	--	--	--	--	--
474639116551001	77-07-13	--	--	--	--	--	--	--	--	--	--
474715116535501	77-07-13	--	--	--	--	--	--	--	--	--	--
474459117004001	77-07-21	--	--	--	--	--	--	--	--	--	--
474416116535401	77-07-20	--	--	--	--	--	--	--	--	--	--
474432116555301	77-07-20	--	--	--	--	--	--	--	--	--	--
474439116572601	77-07-21	--	--	--	--	--	--	--	--	--	--
474325117002801	77-07-21	--	--	--	--	--	--	--	--	--	--
474330116554501	77-07-20	--	--	--	--	--	--	--	--	--	--
475154116445001	77-08-04	--	--	--	--	--	--	--	--	--	--
475146116445401	77-08-02	--	--	--	--	--	--	--	--	--	--
475044116445601	77-08-02	--	--	--	--	--	--	--	--	--	--
475159116484701	77-08-02	--	--	--	--	--	--	--	--	--	--
475047116474401	77-08-03	--	--	--	--	--	--	--	--	--	--
475048116510101	77-08-09	--	--	--	--	--	.1	--	--	--	--
475002116521101	77-07-14	--	--	--	--	--	--	--	--	--	--
474906116484801	77-07-14	--	--	--	--	--	--	--	--	--	--
474828116522601	77-07-13	--	--	--	--	--	--	--	--	--	--
474851116513001	77-07-13	--	--	--	--	--	--	--	--	--	--
474820116473901	77-07-12	--	--	--	--	--	--	--	--	--	--
475716116372901	77-07-19	--	--	--	--	--	--	--	--	--	--
475534116364801	77-07-19	--	--	--	--	--	--	--	--	--	--
475838116412101	77-07-19	--	--	--	--	--	--	--	--	--	--
475657116423601	77-08-02	--	--	--	--	--	--	--	--	--	--
475514116424801	77-07-27	--	--	--	--	--	--	--	--	--	--
475532116405501	77-07-14	--	--	--	--	--	--	--	--	--	--
475754116523501	77-07-19	--	--	--	--	--	--	--	--	--	--
475557116473801	77-08-02	--	--	--	--	--	--	--	--	--	--
475558116464701	77-08-02	--	--	--	--	--	--	--	--	--	--
475345116505401	77-07-28	--	--	--	--	--	--	--	--	--	--
475414116464601	77-07-27	--	--	--	--	--	--	--	--	--	--
475847116340201	77-08-22	--	--	--	--	--	--	--	--	--	--
					MADISON COUNTY--Continued						
433815111351501	77-06-18	--	--	0	10	--	.0	--	60	--	--
434649111470001	77-06-15	--	--	20	8	--	.0	--	150	--	--
434638111414101	77-07-23	--	--	--	--	--	--	--	--	--	--
434729111260801	77-07-24	--	--	--	--	--	--	--	--	--	--
	77-09-06	--	--	20	10	--	--	--	--	20	--
435100111404401	77-07-15	--	--	--	--	--	.0	--	--	--	--
434811111463901	77-07-23	--	--	--	--	--	--	--	--	--	--
434817111423501	77-06-16	--	--	5	8	--	.4	--	160	--	--
435154111362701	77-06-16	--	--	130	0	--	.6	--	100	--	--
435129111353401	77-06-17	--	--	--	--	--	--	--	--	--	--
435043111351801	77-07-23	--	--	--	--	--	--	--	--	--	--
433835111394501	77-07-23	--	--	--	--	--	--	--	--	--	--
					OWYHEE COUNTY--Continued						
423720116325701	77-05-18	--	--	--	--	--	--	--	--	--	--
421815115560501	77-07-06	--	--	--	--	--	--	--	--	--	--
421113116063401	77-09-16	39	--	7	--	--	.0	--	--	--	--
421450115223001	77-05-18	--	--	--	--	--	--	--	--	--	--
420421115111801	77-09-15	8	--	7	--	--	.0	--	--	--	--
420139115214301	77-05-16	--	--	--	--	--	--	--	--	--	--
					POWER COUNTY--Continued						
424728112573301	77-08-17	13	--	40	--	--	.0	--	--	--	--
					TETON COUNTY--Continued						
433420111122501	77-07-12	--	--	2	0	--	2.1	--	170	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SAMP-LING DEPTH (FT)
				TETON COUNTY--Continued					
433855111113001	43 38 55	111 11 30	01	04N 45E 30BAA1S	081	77-07-14	1630	--	--
434428111233901	43 44 28	111 23 39	01	05N 43E 21CCA1S	081	77-07-14	1100	--	--
434325111212001	43 43 25	111 21 20	01	05N 43E 26CCD1S	081	77-07-23	1200	--	--
434553111182601	43 45 53	111 18 26	01	05N 44E 18ABD1S	081	77-06-19	1300	--	--
434304111181701	43 43 04	111 18 17	01	05N 44E 31ACA1S	081	77-06-19	1545	--	--
434944111351501	43 49 44	111 35 15	01	06N 43E 24DCA1S	081	77-06-19	1030	--	--
				TWIN FALLS COUNTY					
423943114484901	42 39 43	114 48 49	01	09S 14E 09ADC1	083	76-10-08	1300	--	850
422925114251201	42 29 25	114 25 12	01	11S 17E 12BBB1	083	77-08-19	1010	--	--
422254115530001	42 22 54	115 53 00	01	12S 05E 16CCB1S	083	77-09-16	1400	--	--
422113114542101	42 21 13	114 54 21	01	12S 13E 26BCC1	083	77-09-15	1320	--	--
421322114473501	42 13 21	114 47 01	01	14S 14E 11CB1S	083	77-05-18	1200	--	--

STATION NUMBER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS, DIS-SOLVED (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE, DIS. (MG/L CACO3)
					TETON COUNTY--Continued						
433855111113001	77-07-14	--	--	--	455	8.9	23.0	--	--	260	150
434428111233901	77-07-14	--	--	--	48	7.2	4.0	--	--	17	0
434325111212001	77-07-23	--	--	--	310	7.8	2.0	--	--	--	--
434553111182601	77-06-19	--	--	--	285	7.5	12.0	--	--	110	0
434304111181701	77-06-19	--	--	--	490	7.3	7.0	--	--	170	0
434944111351501	77-06-19	--	--	--	130	7.1	9.5	--	--	59	0
					TWIN FALLS COUNTY--Continued						
423943114484901	76-10-08	--	--	--	300	9.3	31.0	--	--	19	0
422925114251201	77-08-19	--	--	--	663	7.4	17.5	--	--	240	9
422254115530001	77-09-16	--	--	--	217	7.1	14.0	--	--	68	0
422113114542101	77-09-15	--	--	--	1133	7.3	17.0	--	--	380	15
421322114473501	77-05-18	--	--	--	65	6.4	17.0	--	--	--	--

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	HY-DROXIDE ION (MG/L AS OH)	ALKA-LINITY, TOTAL (MG/L AS CACO3)
					TETON COUNTY--Continued						
433855111113001	77-07-14	61	27	3.5	3	.1	1.6	140	0	--	110
434428111233901	77-07-14	5.4	.9	3.5	29	.4	.8	21	0	--	17
434325111212001	77-07-23	--	--	--	--	--	--	--	--	--	--
434553111182601	77-06-19	45	.1	5.4	9	.2	3.3	170	0	--	140
434304111181701	77-06-19	53	9.1	76	49	2.5	1.3	390	0	--	320
434944111351501	77-06-19	17	3.9	4.9	15	.3	.9	71	0	--	58
					TWIN FALLS COUNTY--Continued						
423943114484901	76-10-08	7.3	.3	61	85	6.0	3.2	120	6	--	108
422925114251201	77-08-19	56	24	48	30	1.4	3.1	280	0	--	230
422254115530001	77-09-16	18	5.5	15	31	.8	4.4	100	0	--	82
422113114542101	77-09-15	68	50	100	36	2.2	7.6	440	0	--	360
421322114473501	77-05-18	--	--	--	--	--	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	IODIDE, DIS-SOLVED (MG/L AS I)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
TETON COUNTY--Continued										
433855111113001	77-07-14	.3	140	1.3	.9	.0	.00	12	317	--
434428111233901	77-07-14	2.1	2.4	1.0	.0	.0	.01	23	47	--
434325111212001	77-07-23	--	--	--	--	--	--	--	--	--
434553111182601	77-06-19	6.6	4.1	3.7	.2	.0	.00	44	191	.26
434304111181701	77-06-19	31	5.5	1.9	.4	.0	.00	8.6	349	.48
434944111351501	77-06-19	8.0	6.0	1.9	.1	.0	.00	25	105	.14
TWIN FALLS COUNTY--Continued										
423943114484901	76-10-08	.1	27	16	3.2	--	--	51	234	.32
422925114251201	77-08-19	18	79	28	.7	--	--	51	439	.60
422254115530001	77-09-16	13	12	8.5	.2	--	--	39	153	.21
422113114542101	77-09-15	35	150	54	.7	--	--	49	739	1.01
421322114473501	77-05-18	--	--	--	--	--	--	--	--	--

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
TETON COUNTY--Continued				
433855111113001	77-07-14	--	.01	--
434428111233901	77-07-14	--	.02	--
434325111212001	77-07-23	--	--	--
434553111182601	77-06-19	.25	.09	--
434304111181701	77-06-19	.03	.00	--
434944111351501	77-06-19	2.2	.05	--
TWIN FALLS COUNTY--Continued				
423943114484901	76-10-08	.04	.00	--
422925114251201	77-08-19	2.4	.04	--
422254115530001	77-09-16	.11	.03	--
422113114542101	77-09-15	9.5	.29	--
421322114473501	77-05-18	--	--	--

STATION NUMBER	DATE OF SAMPLE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, HEXA-VALENT, DIS. (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	IRON (UG/L AS FE)
TETON COUNTY--Continued											
433855111113001	77-07-14	--	1	0	20	--	--	--	--	100	--
434428111233901	77-07-14	--	0	0	9	--	--	--	--	60	--
434325111212001	77-07-23	--	--	--	--	--	--	--	--	--	--
434553111182601	77-06-19	--	1	0	20	--	--	--	--	--	10
434304111181701	77-06-19	--	0	0	50	--	--	--	--	--	50
434944111351501	77-06-19	--	1	0	9	--	--	--	--	--	30
TWIN FALLS COUNTY--Continued											
423943114484901	76-10-08	--	--	--	100	--	--	--	--	--	--
422925114251201	77-08-19	--	13	--	140	8	--	--	--	0	--
422254115530001	77-09-16	--	0	--	60	0	--	--	--	630	--
422113114542101	77-09-15	--	3	--	230	10	--	--	--	40	--
421322114473501	77-05-18	--	--	--	--	--	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

STATION NUMBER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
				TETON COUNTY--Continued							
433855111113001	77-07-14	--	--	10	8	--	.0	--	610	--	--
434428111233901	77-07-14	--	--	2	0	--	.0	--	50	--	--
434325111212001	77-07-23	--	--	--	--	--	--	--	--	--	--
434553111182601	77-06-19	--	--	2	4	--	.5	--	110	--	--
434304111181701	77-06-19	--	--	20	140	--	.0	--	640	--	--
434944111351501	77-06-19	--	--	0	0	--	.0	--	70	--	--
				TWIN FALLS COUNTY--Continued							
423943114484901	76-10-08	--	--	--	--	--	--	--	--	--	--
422425114251201	77-08-19	80	--	30	--	--	.4	--	--	--	--
422254115530001	77-09-16	6	--	7	--	--	.0	--	--	--	--
422113114542101	77-09-15	23	--	20	--	--	.0	--	--	--	--
421322114473501	77-05-18	--	--	--	--	--	--	--	--	--	--

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☆ U.S. GOVERNMENT PRINTING OFFICE: 1979—697-829

October 13, 1977

FACTORS FOR CONVERTING U.S. CUSTOMARY UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the U.S. customary units published herein to the International System of Units (SI). Subsequent reports will contain both the U.S. customary and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply U.S. customary units	By	To obtain SI units
	Length	
inches (in)	2.54x10^{1}	millimeters (mm)
	2.54x10^{-2}	meters (m)
feet (ft)	3.048x10^{-1}	meters (m)
miles (mi)	1.609x10^{0}	kilometers (km)
	Area	
acres	4.047x10^{3}	square meters (m^{2})
	4.047x10^{-1}	square hectometers (hm^{2})
	4.047x10^{-3}	square kilometers (km^{2})
square miles (mi^{2})	2.590x10^{0}	square kilometers (km^{2})
	Volume	
gallons (gal)	3.785x10^{0}	liters (L)
	3.785x10^{0}	cubic decimeters (dm^{3})
	3.785x10^{-3}	cubic meters (m^{3})
million gallons	3.785x10^{3}	cubic meters (m^{3})
	3.785x10^{-3}	cubic hectometers (hm^{3})
cubic feet (ft^{3})	2.832x10^{1}	cubic decimeters (dm^{3})
	2.832x10^{-2}	cubic meters (m^{3})
cfs-days	2.447x10^{3}	cubic meters (m^{3})
	2.447x10^{-3}	cubic hectometers (hm^{3})
acre-feet (acre-ft)	1.233x10^{3}	cubic meters (m^{3})
	1.233x10^{-3}	cubic hectometers (hm^{3})
	1.233x10^{-6}	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	2.832x10^{1}	liters per second (L/s)
	2.832x10^{1}	cubic decimeters per second (dm^{3}/s)
	2.832x10^{-2}	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	6.309x10^{-2}	liters per second (L/s)
	6.309x10^{-2}	cubic decimeters per second (dm^{3}/s)
	6.309x10^{-5}	cubic meters per second (m^{3}/s)
million gallons per day	4.381x10^{1}	cubic decimeters per second (dm^{3}/s)
	4.381x10^{-2}	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	9.072x10^{-1}	megagrams (Mg) or metric tons